Dettlinger, Carl

From: Glenda Wehrli <gwehrli@metalico.com>
Sent: Friday, March 17, 2023 12:44 PM
To: AQ Permits
Subject: Metalico Pittsburgh, Inc. Synthetic Minor Permit Application (Email 1 of 4)
Attachments: 2023-03-16 Metalico Pittsburgh Permit Application Cover Letter.pdf; Metalico_Synthetic Minor_Calcs_3.8.2023.xlsx; Metalico Pittsburgh ACHD Synthetic Minor Permit BMP Plan Rev 03-2023.pdf

Per the request of the County, Metalico Pittsburgh is submitting the Synthetic Minor Permit Application via email.

The file size is too large to send in one email; therefore, I will send four.

Email 1 of 4 contains following information:

- Cover Letter
- Calculations Spreadsheet
- BMP Plan

Metalico Pittsburgh is requesting the ability to review the drafted permit prior to going to public comment.

Note: The Installation Permit Fee of $2,500 will be sent to the County; postmarked today.

Sincerely,

Glenda Wehrli
Director of Environmental Compliance and Employee Safety
Cell: (330) 651-3482 | Office: (412) 771-7000 Ext. 5033
Email: gwehrli@metalico.com

Metalico Pittsburgh, Inc.

3100 Grand Avenue
Pittsburgh, PA 15225
Phone: (412) 771-7000
Fax: (412) 771-3340

March 16, 2023

Allegheny County Health Department
Air Quality Division
301 39th Street, Building #7
Pittsburgh, PA 15201-1811

RE: Metalico Pittsburgh, Inc.
Synthetic Minor Air Quality Permit Application

Metalico Pittsburgh, Inc. (Metalico) is submitting this permit application to apply for a synthetic minor air permit for the operation of emission sources at our existing metal scrap shredding facility, located in Neville Township, Allegheny County, Pennsylvania. The facility currently operates under Minor Source Operating Permit #0692, authorized by the Allegheny County Health Department (ACHD) on August 21, 2007.

This application is being submitted in response to the Administrative Compliance Order of Consent U.S. EPA Docket No. CAA-03-2023-0016DA issued by the United States Environmental Protection Agency (USEPA) on December 9, 2022, and signed on January 19, 2023. The application follows the limitations and conditions, specified in the Consent Order, to ensure the facility will not exceed emissions of 50 tons per year of Volatile Compounds (VOCs).

The enclosed application contains the required application forms and support material. The required documents and associated application fee of $2,500 in the form of a check made payable to the ACHD Air Pollution Control Fund are provided in the appendices to this application as outlined below:

- Appendix A: ACHD Air Quality Permit Application Form
- Appendix B: Compliance Review Form
- Appendix C: Detailed Emission Calculations
- Appendix D: Technical Support Documents
- Appendix E: Process Flow Diagram
- Appendix F: Area Map
- Appendix G: USEPA Consent Order
- Appendix H: Application Fee

If you have any questions or comments about the attached information or have additional information requirements, please feel free to contact me directly by phone at (412) 771-7000 ext. 5033, or by email at gwehrli@metalico.com.

Sincerely,

Glenda K. Wehrli
Director of Environmental Compliance & Employee Safety

ACHD Synthetic Minor Permit

Best Management Practices (BMP) Plan

Metalico Pittsburgh

3100 Grand Avenue

Pittsburgh, Pennsylvania 15225

Prepared For

Metalico Pittsburgh

3100 Grand Avenue

Pittsburgh, Pennsylvania 15225

March 2023

Barton&Loguidice

Metalico Pittsburgh
3100 Grand Avenue
Pittsburgh, Pennsylvania 15225

Best Management Practices (BMP) Plan

March 2023

Prepared For

Metalico Pittsburgh
3100 Grand Avenue
Pittsburgh, Pennsylvania 15225

Prepared By

Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, New York 13088

Table of Contents

Figures

1.0 FACILITY DESCRIPTION AND CONTACT INFORMATION

1.1 Facility Name and Location

The Metalico Pittsburgh is a scrap recycling facility (herein referred to as the "site" or "facility") located in the Town of Neville in Allegheny County, Pennsylvania (see Figure 1 – Site Location Map). The facility is accessible from Grand Avenue.

Facility Address and Telephone:

Metalico Pittsburgh Inc.
3100 Grand Avenue
Pittsburgh, Pennsylvania 15225
(412) 771-7000 Ext. 5033
Contact: Glenda Wehrli, Director of Environmental Compliance and Employee Safety

1.2 Facility Owner/Operator

The facility is owned and operated by Metalico Pittsburgh Inc. The main offices are located at the following address:

Owner/Operator Address:

Metalico Pittsburgh, Inc.
3100 Grand Avenue
Pittsburgh, Pennsylvania 15225
Phone: (412) 771-7000

1.3 Facility Contacts and Responsibilities

The facility personnel responsible for overseeing the implementation of this BMP Plan are as follows:

Title	Name
General Manager	Joe Pardee
Director of Environmental Compliance & Employee Safety	Glenda Wehrli
Shredder Operations Manager	Kyle Michlovic
Ferrous Operations Manager	Ronald Glass
Non-Ferrous Operations Manager	Alan Hightower
Maintenance Supervisor	Mark Diamond

The General Manager of the Facility is responsible for overseeing business operations, environmental compliance, and workplace safety. The Director of Environmental Compliance & Employee Safety manages organizational compliance with local, state, and federal environmental, health and safety regulations. The Operation Managers are responsible for the management of labor, productivity, quality control, safety measures, and environmental impact. The Maintenance Manager oversees the maintenance of all equipment involved with production, including the sweeper and watering equipment/vehicles.

1.4 Facility Description

1.4.1 Facility Operations

In general, operations at the Metalico Pittsburgh facility are typical of a scrap metal processing and recycling facility. The facility specializes in the recycling of ferrous and non-ferrous metals. The facility receives, sorts, stores, and processes (shearing, baling, shredding, etc.) various scrap metals. The scrap processing portion of the facility is normally staffed during the hours of 7:00 a.m. to 4:30 p.m. Monday through Friday, and 7:00 a.m. to 12:00 p.m. on Saturday.

1.4.2 Site Description

The facility is situated on a parcel located in a commercial/industrial area of the Town of Neville in Allegheny County, Pennsylvania (see Figure 1). The site is bordered to the east by Mr. John portable toilets, to the west by Triad Metals, and to the north by the Ohio River. The facility is accessible from Grand Avenue. The general facility layout and process areas are shown in Figure 2.

The site also includes developed areas for site and facility access, vehicle parking, equipment fueling and storage/processing of scrap metal. A limited amount of undeveloped scrub vegetation covered area is located at the north end of the site. The main building houses an office area, maintenance area, scrap receiving area, and scrap storage areas.

2.0 BEST MANAGEMENT PRACTICES (BMPS)

The following techniques are considered best management practices (BMPs) to prevent or mitigate potential airborne matter from the facility operations and are to be followed as part of normal procedures.

The BMP Plan will be modified whenever there is a change at the facility or as needed.

2.1 Visible Emissions

To properly eliminate and control particulate emissions throughout the facility, sweeping and watering of the roadways and driveways is conducted at the facility. These procedures are conducted regularly, except for on days in which enough snow, ice, or precipitation has occurred that is sufficient for that day to ensure compliance. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use. The following operations/procedures are in place:

- Shredder's Sweeper: Sweepers must be operated according to the manufacturers' recommended procedures. While sweeping, the operator will drive 5 mph. Prior to sweeping, brushes will be inspected to ensure they are functional. Brushes will be replaced when the bristle length is less than 3 inches. Any hotspot areas will be noted for extra sweeping. The minimum frequency of sweeping is as follows:
    - Entrance/Parking Lot: Bi-monthly
    - Main Yard: Bi-weekly
    - Roadway Back at River: Weekly
    - Around Maintenance Garage: Weekly
- Metals' Sweeper: Operating procedures are the same as the shredder's sweeper. Any hotspot areas will be noted for extra sweeping. The Entrance/Parking lot is to be swept at a minimum bi-weekly frequency.
- Site Watering Truck: Watering trucks must be operated according to the manufacturers' recommended procedures. Trucks will be driven at 5 mph. Prior to watering, hoses will be inspected to ensure they are functional. Any hotspot areas will be noted for extra watering. The minimum frequency of watering is as follows:
    - Main Yard: As Needed
    - Roadway Back at River: As Needed
    - Around Maintenance Garage: As Needed
- At the start and end of operation, each operator will fill out the water truck or sweeper truck log which includes the name of operator, date, start and stop time, and any equipment issues.

2.2 Inbound Material Inspection and Material Handling and Storage

Non-conforming materials, hazardous or dangerous materials, and unwanted materials are all potentials for damaging equipment, impacting finished product quality, and causing unwanted reactions or fires. While the facility accepts a wide variety of recyclable scarp metals, the shredding operation has strict policies on what materials are unacceptable for the shredder.

Unacceptable Incoming Materials for Shredding	
Fuel tanks containing liquid and/or vapor	Acetylene, oxygen, propane cylinders, closed containers, or sealed units of any kind
Batteries or battery pieces	Capacitors
Lead cable ends	Transformers
White goods, air conditioners, or refrigeration equipment with freon (CFCs and HCFCs)	Fluorescent light ballasts containing PCBs
Liquids or sludge of any kind	Radioactive material
Sealed drums, barrels, pails, or buckets	Mercury switches
Microwave ovens/microwaves	Oil filters

The following procedures are currently implemented at the facility:

- Cars are prepared for the Shredding Process (including, but not limited to, draining of fluids, removing of batteries, mercury switches, etc.).
- Free flowing used oil and other fluids are collected and placed in a labeled storage containment that are materially compatible and non-leaking.
- Disposal and/or recycling of all fluids complies with the RCRA.
- If a spill is to occur, it must be cleaned up immediately upon detection using spill kits found in the inspection and/or car prep area. All spills and leaks must be reported to the Operations Manager and EHS Department.

2.3 Shredder Operational Limitations

The Facility imposes the following operational limitations on the shredder:

- A maximum hours of operation of 10 hours in any calendar day, or 8 hours per day during Air Quality Action Days, as determined by ACHD. An Air Quality Action Day is defined as: a day for which a forecast, for Allegheny County, has been issued by the Pennsylvania Department of Environmental Protection, the Allegheny County Health Department or the Southwest Pennsylvania Air Quality Partnership indicating that ambient concentrations of ozone, particulate matter, carbon monoxide, sulfur dioxide, or nitrogen dioxide might reach unhealthful levels or exceed the National Ambient Air Quality Standard. Air Quality Action Day alerts from ACHD can be requested at www.alleghenycounty.us/alerts.

- A maximum shred feed rate of 120 tons per hour.
- A maximum throughput rate of 240,000 tons per year of shred feed.
- A maximum annual hourly operating limit such that the Facility will not exceed a PTE of 50 tons per year of VOCs, inclusive of all other VOC emitting sources located at the Facility.
- An emission factor of 0.39 pounds VOCs per ton of shred feed (lb VOC/ton) will be used for all VOC emissions calculations related to VOC emissions generated by the Facility Shredder.
- The hours of operation per day in which the Shredder operates at an amperage draw equal to or greater than 200 amps will be recorded using the Shredder's existing or a functionally equivalent amperage monitoring system. These recorded hours define the number of hours the Shredder is emitting VOCs, in order to calculate annual VOC emissions.
    - The monitoring system will collect data before, during, and after the Shredder's operation at an amperage draw equal to or greater than 200 amps for a minimum period of 12 hours per day.
    - The total number of hours per day in which the amperage is equal to or greater than 200 amps will be reported to ACHD in a manner and frequency proposed by the permittee for approval by ACHD.
    - Data from the amperage monitoring system shall be maintained on a central server for access by the Facility to provide to ACHD or EPA upon request.

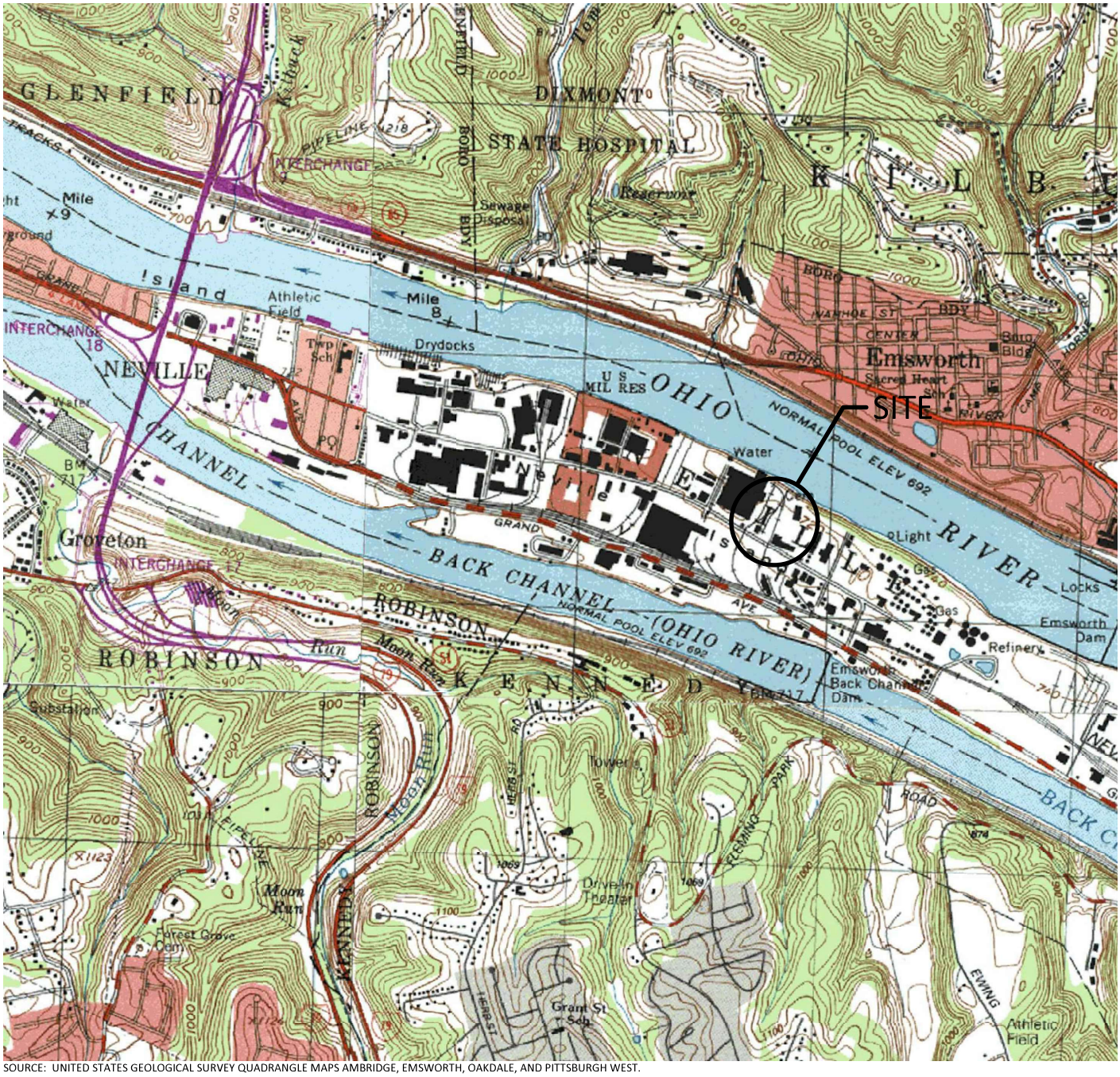
2.4 Fire Prevention

The facility has a Fire Prevention Plan (FPP) in place to control and reduce the possibility of fire and to specify the type of equipment to use in case of fire. All employees at the facility receive annual fire training. Additionally, a water line was installed in 2022 to ensure the site has enough water to fight fires. Infrared cameras are used daily to scan the area and scrap piles in order to identify any "hotspots" or areas where a reaction with incompatible materials may exist, and to reduce the potential for fires. Further:

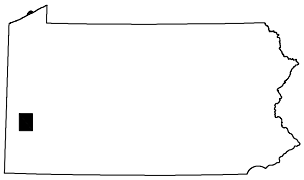
- Material is staged for fire suppression, and material is wet down as needed at the end of the day shift.
- Nightly thermal camera surveys are conducted on each pile of material to identify hotspots. If a hotspot is detected, the Shredder Operations Manager is notified immediately. The hotspot and surrounding area are wet and the material in question segregated. The Shredder Operations Manager is responsible for ensuring all piles are inspected before the site is left vacant.
- Equipment and vehicles are parked a safe distance away from stored scrap material.

Figure 1

Site Location



SOURCE: UNITED STATES GEOLOGICAL SURVEY QUADRANGLE MAPS AMBRIDGE, EMSWORTH, OAKDALE, AND PITTSBURGH WEST.



2000' 0 2000'

1"=2000'

N

TRUE NORTH

443 Electronics Parkway
Liverpool, NY
13088

Barton & Loguidice, D.P.C.

METALICO PITTSBURGH
AIR BMP

SITE LOCATION MAP

CITY OF PITTSBURGH ALLEGHENY COUNTY, PENNSYLVANIA

Figure Number
1

Project Number
1206.018.014

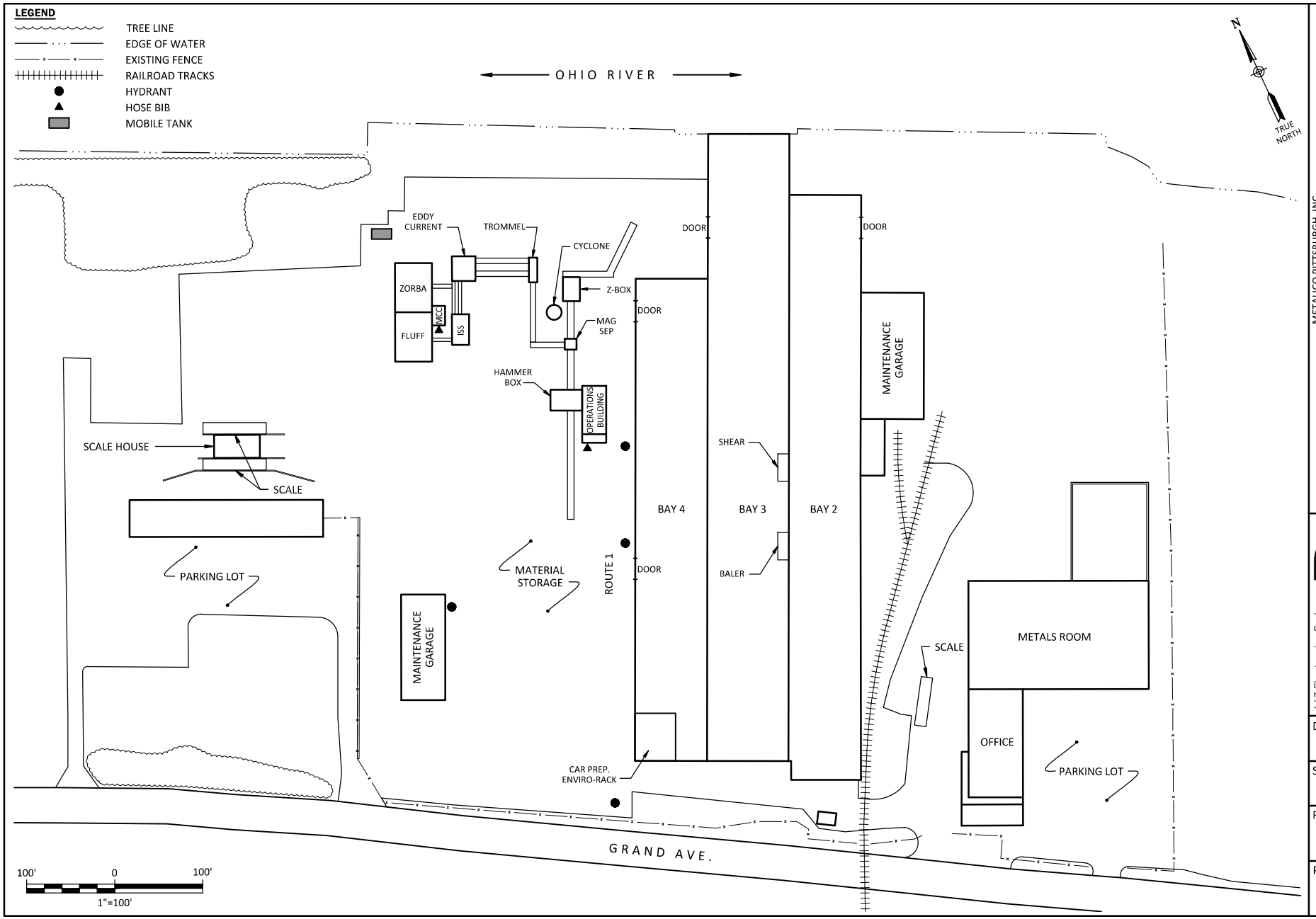
Date
FEBRUARY 2023

Scale
AS SHOWN

Plotted: Feb 13, 2023 – 12:09PM SYR By: WBG
Z:\BL-Vault\1 – Project Files\1 – Sorted by Project Number {2} Class {2} Folder\1200\1206.018.014\1206018 Fig1 Site Location Map.dwg

Figure 2

Site Layout



METALICO PITTSBURGH, INC.
METALICO PITTSBURGH
3100 GRAND AVE. AND 3400 GRAND AVE.

SITE PLAN

PENNSYLVANIA

CITY OF PITTSBURGH

B&L
Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, NY
13088

Date
MARCH 2023

Scale
1" = 100'

Figure Number
2

Project Number
1206.018.014

Plotted: Mar 03, 2023 – 2:00PM SYR By: JGS
Z:\BL-Vault\D2\18217AD2-1C71-4823-8927-99D5C4054147\D\2832000-2832999\2832052\LL\1206018 Metalico Pittsburgh Site Plan (ID 2832052).dwg

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listen
The power to
solve℠

Barton
&Loguidice

www.bartonandloguidice.com

Air Quality Permit Application Package Checklist

To ensure timely processing of your permit application, the following checklist is provided as a list of items required for a complete application. If at any time you have questions about your application, please call 412-578-8115 or the permitting engineer.

Your permit application package should include:

- [X] A cover letter with a description of the installation (for installation permits) or process description (for operating permits.)
- [X] Completed Permit Application Form (https://www.alleghenycounty.us/uploadedFiles/Allegheny_Home/Health_Department/Programs/Air_Quality/AQpermitappl-2009.pdf)
- [ ] BACT analysis (IP applications only) **Not Applicable**
- [ ] Air Toxics Review (IP applications only) **Not Applicable**
- [X] Calculations; including live spreadsheet where applicable
- [X] Process flow diagrams
- [X] Any relevant manufacturer specifications or guarantees
- [X] Any appendices containing additional information such as Sources of Minor Significance
- [X] Completed Compliance Review Form (https://alleghenycounty.us/uploadedFiles/Allegheny_Home/Health_Department/Programs/Air_Quality/comrev.pdf)
- [X] Application fee
- [X] Brief description of changes, such as equipment removed or added, since the previous permit (OP renewal applications only)

Please note that if any of these items are missing or incomplete, the permit application may be deemed "incomplete" and will result in a delay of processing.

Allegheny County Health Department
Air Quality
301 39th Street Building # 7
Pittsburgh, PA 15201-1811
Phone (412)578-8115 Fax (412) 578-8144

PHAB
Advancing public health performance

Prepared for:
Metalico Pittsburgh, Inc.

Submitted to:
Allegheny County Health Department
Division for Air Quality

Prepared by:
Ramboll US Consulting, Inc.

Date:
March 2023

METALICO PITTSBURGH, INC.

SYNTHETIC MINOR AIR QUALITY PERMIT APPLICATION

Ramboll US Consulting, Inc.
1600 Parkwood Circle
Suite 310
Atlanta, GA 30339
USA
T +1 770 874 5010
www.ramboll.com

RAMBOLL

CONTENTS

TABLES

APPENDICES

1. INTRODUCTION

Metalico Pittsburgh, Inc. (Metalico) is submitting this permit application to apply for a synthetic minor air permit for the operation of emission sources at our existing metal scrap shredding facility, located in Neville Township, Allegheny County, Pennsylvania. The facility currently operates under a Minor Source Operating Permit #0692, authorized by the Allegheny County Health Department (ACHD) on August 21, 2007.

This application is being submitted in response to the Administrative Compliance Order of Consent, U.S. EPA Docket No. CAA-03-2023-0016DA issued by the United States Environmental Protection Agency (USEPA) on December 9, 2022 and signed on January 19, 2023. Metalico is submitting the application by March 19, 2023, in accordance with Condition #42 and #43 of the issued Consent Order.

The emissions limitations and other operating criteria for this facility, as specified under the issued Consent Order included in **Appendix G**, are as follows:

- Maximum hours of operation of 10 hours in any calendar day, or eight hours per day during Air Quality Action Days as determined by ACHD.
- Maximum shred feed rate of 120 ton/hour.
- Maximum throughput rate of 240,000 tons per year of shred feed.
- Maximum annual hourly operating limit, such that the Facility will not exceed a PTE of 50 TPY VOCs, inclusive of all other VOC emitting sources located at the facility.
- An emission factor of 0.39 lb VOC per ton of shred feed (lb VOC/ton) shall be used for all VOC emissions calculations related to VOC emissions generated by the Facility Shredder.
- Record of hours of operation, as described in Consent Order: Condition #42(f), (f)(i), (g), (h).
- Document and records shredder feed, as described in Consent Order: Condition #42(i).
- Prepare a best management plan (BMP), as described in Consent Order: Condition #42(j), (j)(i – iv) and submit annually to ACHD.

The emissions for this facility is within these operational limitations described in the Consent Order and as summarized in **Table 3-1.**

2. PROCESS DESCRIPTION

The raw materials (metal scraps) are fed to the shredder by an infeed conveyor. Water is added to the shredder from the water injection system to control dust in the shredder and to dampen the shredded product to eliminate dust emissions at the transition points in the process. The amount of water added is controlled by the shredder motor load which generate a signal to control the rate of water injection into the mill. The shredded product is fed to the first transfer conveyor, which feeds the magnet separation system. Non-ferrous material is sent to the non-ferrous conveyor. Ferrous material is sent to the second transfer conveyor. From the second transfer conveyor, the ferrous material is sent to the cyclone Z-Box product cleaning, which will remove any non-metallic and non-ferrous material which made it past the magnet separation system and send it back to the non-ferrous conveyor. The ferrous material is sent to the sorting conveyors and stacker for ferrous finished goods inventory.

The non-ferrous conveyor will then transfer to the batch feeder. From the batch feeder, the non-ferrous material is fed by the trommel feeder conveyor to the trommel. From the trommel, the non-ferrous material is separated by: medium size material, undersize material, and oversize material. The oversized material is transferred to an oversize non-ferrous bin. The undersize size material is fed by the undersize material conveyor to the Bivi-Tec Screen. Material which is screened out of the Bivi-Tec Screen than is transferred to a non-metallic bin. Material with the small fraction Steinart ECS is transferred to the first non-ferrous product conveyor, or the first non-metallic conveyor. The medium size material is fed by the medium size material conveyor to the middle fraction Steinart ECS. Material with the middle fraction Steinart ECS is transferred to the first non-ferrous product conveyor, or the first non-metallic conveyor. The non-ferrous material is fed to the second non-ferrous product conveyor and sent to the non-ferrous finished goods inventory. From the first non-metallic conveyor, the material is fed to the ISS and transferred to the non-metallic bin or stainless product bin.

A process flow diagram is included in **Appendix E.**

3. EMISSIONS CALCULATION

3.1 Emissions Summary

The maximum air pollutant emission rates proposed for the facility are presented in **Table 3-1.** Detailed emission calculations for the equipment and operations are presented in **Appendix C.**

Table 3-1: Total Facility-wide Emissions in Tons Per Year (tpy)

Source	VOC	NO_x	CO	PM	PM_{10}	$PM_{2.5}$	SO_2	HAPs
Clean Burn unit (C001)	0.01	0.23	0.03	0.83	0.72	0.72	1.55	--
Scrap Metal Processor (P001)	46.80	--	--	13.06	13.06	13.06	--	1.33
Storage Tanks	0.01	--	--	--	--	--	--	--
Road Dust	--	--	--	28.94	6.23	1.35	--	--
Fugitive Emissions: Torch Cutting	--	--	--	0.24	0.24	0.24	--	--
Fugitive Emissions: Parts Washer	0.12	--	--	--	--	--	--	--
Total	**46.94**	**0.23**	**0.03**	**43.07**	**20.24**	**15.36**	**1.55**	**1.33**

[1] At the maximum shred feed rate of 120 tph, 240,000 tons/year correlates to 2,000 hours/year shredder operating hours. Metalico shall use the annual operating hours as a basis to ensure that the total quantity of VOC emissions at the Facility, including those from the Shredder and all other Facility sources, does not exceed the 50 TPY VOC.

4. COMPLIANCE WITH FEDERAL PERMITTING REQUIREMENTS

Metalico is a minor stationary source under the New Source Review (NSR) requirements of the Federal Clean Air Act. The facility is located in Allegheny County, Pennsylvania, which is listed as in attainment or unclassifiable with the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants, except for: 2012 PM-2.5 standard (classified as moderate non-attainment), 2010 sulfur dioxide standard (classified as moderate non-attainment), and 2008 ozone standard (classified as marginal non-attainment). For non-attainment pollutants, which include Particulate Matter 2.5 ($PM_{2.5}$), Sulfur Dioxide (SO_2), Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NOx), which are precursors to ozone, Non-attainment New Source Review (NNSR) is not triggered since the PTE for $PM_{2.5}$, SO_2, VOCs and NOx do not exceed the threshold for either moderate or marginal non-attainment pollutants.

Metal scrap processing operations are not a listed source category under 40 CFR §52.21(b)(1); therefore, the facility would be considered a major source if attainment criteria pollutant emissions are greater than or equal to the major source threshold of 250 tons per year (tpy). The maximum annual emission rates for the attainment criteria pollutants are less than 250 tpy. Therefore, the facility will be a minor source as defined in the rules, and Prevention of Significant Deterioration (PSD) review is not triggered.

Furthermore, Title V permitting requirements are also not triggered since the Title V major source thresholds are not exceeded (100 tpy for each criteria pollutant, except VOC which is 50 tpy, 25 tpy for total hazardous air pollutants (HAPs), and 10 tpy for any single HAP). The facility is considered an area source of HAPs.

APPENDIX A
ACHD Air Quality Permit Application Form

ALLEGHENY COUNTY HEALTH DEPARTMENT
AIR QUALITY PROGRAM
301 39TH STREET, CLACK HEALTH CENTER BUILDING 7, PITTSBURGH, PA 15201-1811
PHONE 412.578.8103 • 24-HR: 412.687.ACHD (2243)
WWW.ALLEGHENYCOUNTY.US/HEALTHDEPARTMENT

Air Quality Permit Application Form

SECTION 1. PERMIT DESCRIPTION

Check Type of Permit:	Installation	Operating
Initial		
New Construction		
Major Modification		
Minor Modification		
Reactivation		
Temp.Source/Multi.Loc		
New Permit		
Renewal		
Adm. Permit Amend.		
Other (Explain Below)		X

This permit application is for a:	
Major Source	
Minor Source	
Synthetic Minor Source (See Section 10)	X

Amount enclosed:
$_____

FOR ACHD USE ONLY

Permit Number: _____
Completeness: _____
Administration: _____
Engineering: _____
Assigned to: _____

Brief Description of Permit Application/Source: This synthetic minor permit application is being submitted in response to the Administrative Compliance Order of Consent U.S. EPA Docket No. CAA-03-2023-0016DA issued by the USEPA on December 9, 2022 and signed on January 19, 2023.

SECTION 2. APPLICANT INFORMATION

Applicant Type Code	Applicant Name or Registered Fictitious Name	FOR ACHD USE ONLY
01	Metalico Pittsburgh, Inc.	

First Name	M. I.	Last Name
Glenda	K	Wehrli

Title: Director of Environmental Compliance & Employee Safety

Mailing Address (Street # and Name or P. O. Box #, Box #, RR #, RD #)
3100 Grand Avenue

Relationship of Applicant to Permitted Activity. See instructions for appropriate code.

City	State	Zip Code + Extension
Pittsburgh	PA	15225

Telephone	FAX	E-mail
412-771-7000 ext. 5033		gwehrli@metalico.com

SECTION 3. SITE INFORMATION

Facility Site Name	Federal Tax Identification Number
Metalico Pittsburgh, Inc.	26-2452344

Address (Street #, Street Prefix, Street Name, Street Type, Street Suffix) ***P. O. BOX # IS NOT ACCEPTABLE***
3100 Grand Avenue

Municipality	State	Zip Code + Extension
Neville Township	PA	15225

Telephone (Day)	Telephone (Eve.)	FAX
412-771-7000 ext. 5033	330-651-3482	

SECTION 3. (cont.)

MAP LOCATION: Please provide the Universal Transverse Mercator (UTM) coordinates or the exact latitude and longitude of the plant. UTM coordinates are preferable to latitude and longitude and can be determined from US Geological Survey 7.5 Minute 1:24,000 scale maps.

Attach a drawing of your source showing all emission points. Number each stack S001, S002, S003, etc., and number each fugitive emission location F001, F002, etc. Identify roads as paved or unpaved, marking all parking lots (see Form E). Identify the plant boundary on the map. Include local roads and other necessary identifiers that will allow the Department to locate your source on County-wide maps.

UTM North 4484473 Or Latitude _____ Degrees _____ Minutes _____ Seconds NORTH

UTM East 575577 Or Longitude _____ Degrees _____ Minutes _____ Seconds WEST

PLANT PROPERTY 17.26 Acres or _____ Square feet

BUILDING AREA _____ Acres or 197,061 Square feet

GIVE TRAVEL DIRECTIONS FROM DOWNTOWN PITTSBURGH:

Take I-279 N to Route 65; follow Route 65 N and cross the McKees Rocks Bridge; take 51 N to Fleming Park Bridge; take Fleming Park Bridge onto Neville Island Road. Follow Neville Island Road until Grand Avenue; turn right onto Grand Avenue and continue until site is reached at 3100 Grand Avenue Pittsburgh, PA 15225.

DESCRIPTION OF BUSINESS

GIVE A BRIEF DESCRIPTION OF BUSINESS OR ACTIVITY CARRIED OUT AT THIS LOCATION:

Facility performs scrap metal recycling by mechanical preparation including baling, shearing, breaking, and shredding. The processed scrap metal is sorted into ferrous metal, non-ferrous metal, and non-metallic for sale to third party consumers or disposal at other facilities.

PRINCIPAL PRODUCT(S):

Ferrous and non-ferrous metal scrap

APPROXIMATE NUMBER OF EMPLOYEES: 75
If employment is seasonal, give the typical peak employment and indicate what season.

STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE FOR THIS LOCATION:
If there is more than one activity at this location, provide the Standard Industrial Code (SIC) for the principal activity, and other SIC codes in descending order of importance.

Primary SIC Code: 50 Primary activity: Wholesale trade – durable goods

Secondary SIC Code: _____ Secondary activity: _____

Tertiary SIC Code: _____ Tertiary activity: _____

SECTION 4. ENVIRONMENTAL CONTACT			
First Name Glenda	M. I. K	Last Name Wehrli	
Title Director of Environmental Compliance & Employee Safety			
Telephone 412-771-7000 ext. 5033		FAX	
Mailing Address (Street # and Name or P. O. Box #, Box #, RR #, RD #) 3100 Grand Avenue			
City Pittsburgh	State PA	Zip Code + Extension 15225	
E-mail gwehrli@metalico.com			

SECTION 5: APPLICABLE REQUIREMENTS

In this section, briefly describe all applicable federal, state, or local air rules or requirements pertaining to the facility or any part of the facility.

"Applicable requirements" can come from any of the following:

(i.) Regulations that have been promulgated or approved by the EPA under the Clean Air Act or the regulations adopted under the Clean Air Act through rulemaking at the time of issuance but have future-effective compliance dates.

(ii.) A regulation under Allegheny County Article XXI (Air Pollution Control), including those incorporated by reference.

(iii.) A term or condition of any installation or operating permits issued pursuant to the County air quality regulations.

(iv.) A standard or other requirement under Section 111 of the Clean Air Act, including subsection (d).

(v.) A standard or other requirement under Section 112 of the Clean Air Act (42 U.S.C.A. □ 7412), including any requirement concerning accident prevention under subsection (r) (7).

(vi.) A standard or other requirement of the acid rain program under Title IV of the Clean Air Act (42 U.S.C.A. □□ 7641 - 7651o) or the regulations promulgated under the Clean Air Act.

(vii.) Requirements established under Section 504(b) or Section 114(a)(3) of the Clean Air Act (42 U.S.C.A. □ 7414(a)(3).

(viii.) A standard or other requirement governing solid waste incineration, under Section 129 of the Clean Air Act (42 U.S.C.A. □ 7429).

(ix.) A standard or other requirement for consumer and commercial products, under Section 183(e) of the Clean Air Act (42 U.S.C.A. □ 7511b(e)).

(x.) A standard or other requirement for tank vessels, under Section 183(f) of the Clean Air Act (42 U.S.C.A. □ 7511b).

(xi.) A standard or other requirement of the program to control air pollution from outer continental shelf sources, under Section 328 of the Clean Air Act (42 U.S.C.A. □ 7627).

(xii.) A standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Clean Air Act (42 U.S.C.A. □□ 7671-7671q), unless the Administrator of the EPA has determined that such requirements need not be contained in a Title V permit.

(xiii.) A national ambient air quality standard or increment or visibility requirement under Title I, Part C of the Clean Air Act (42 U.S.C.A. □□ 7470-77491), but only as it would apply to temporary sources permitted pursuant to Section 504(e) of the CAA (42 U.S.C.A. □ 7661d).

Include any regulations that are final, but may require controls to be put on, or lower emission rates to come into effect in the future. Be as specific as necessary. For example, if you have boilers rated at 10, 70, and 100 MMBtu, then for sulfur dioxide emissions list Article XXI 2104.03 a.1, 2, and 3. When you complete the Forms for specific operations, you will be requested to repeat those requirements unique to that unit. Include general emission requirements, such as 2104.04, odor emissions, if they apply.

If there are any limitations on source operation affecting emissions or any work practice standards, provide details in this section. Include supporting documents, if necessary. If the facility is claiming any exemptions to a part of an applicable requirements stated above or any other requirements, clearly identify what section. Copy this page as needed, and attach these additional pages to this section.

An example of how Section 5.A might be completed:

Emission Regulation	**Description**
Art. XXI □ 2104.02.a.2	**PM** 0.40 #/10^6 BTU
Art. XXI □ 2104.03.a.1	**SO_2** 1.0 #/10^6 BTU
Art. XXI □ 2104.01.a	**Opacity** □20% for ≤3 min./hr. or 60% at no time
Art. XXI □ 2105.06.d.1	Low **NOx** Burners w/overfire air

List and summarize all applicable federal, state, or local air rules or requirements pertaining to the facility or any part of the facility. Also describe any regulated work practice standards that affect air emissions. Include any regulations that are in place, but have delayed deadlines for compliance. (COPY THIS PAGE AS NEEDED)

REGULATION	DESCRIPTION
Article XXI 2101.01	General
Article XXI 2102.01	Permit Generally
Article XXI 2103.01	Operating Permits
Article XXI 2104.01	Pollutant Emission Standards
Article XXI 2105.01	Source Emission and Operating Standards
Article XXI 2106.01	Air Pollution Episodes
Article XXI 2108.01	Reporting, Testing, & Monitoring
Article XXI 2109.01	Enforcement

SECTION 6: METHOD OF DEMONSTRATING COMPLIANCE

List the method of demonstrating compliance with each of the emission standards (these may become conditions of the Operating Permit):

A. Compliance Method/ Monitoring Devices:

EMISSION UNIT #	POLLUTANT	REFERENCE TEST METHOD OR COMPLIANCE METHOD OR MONITORING DEVICE	FREQUENCY / DURATION OF SAMPLING
P001	Particulate Matter	Interlock on water injection system, which shuts down infeed conveyor if water injection pump fails.	N/A
P001	VOC	Shredder amperage must be monitored by an amperage monitoring system.	When shredder is equal to or greater than 200 amps, for a minimum period of 12 hours/day.
P001	Visible Emissions (Opacity)	Weekly visible emissions (Method 22) inspections will be conducted when shredder is in operation.	Weekly
Attach any details that would further explain the method of compliance.			

B. Record keeping and Reporting:

1. List what parameter will be recorded and the frequency of recording:

PARAMETER	FREQUENCY
Shredder will not operate with water injection system inlock in place.	N/A
The total number of hours per day in which the shredder amperage is equal to or greater than 200 amps must be recorded for a minimum period of 12 hours/day.	Daily

Amount of water usage (in gallons) of Smart Water Injection System	Daily
Tons of scrap metal shredded	Daily

2. Describe what is to be reported and the frequency of reporting? (Reports must be submitted at least every six (6) months)

DESCRIPTION	FREQUENCY
Hours of Operation	Daily
Tons Shredded	Daily
Water usage (in gallons) of Smart Water Injection System	Daily
Hours per day shredder amperage is equal to or greater than 200 amps for a minimum period of 12 hours/day.	Daily

3. Beginning reporting date: __ /__ /__

SECTION 7: COMPLIANCE PLAN

A source may apply for and receive an Operating Permit if one or more emission units are out of compliance with a regulation, provided that an adequate plan is in place to bring the unit(s) into compliance.

A.__ 1. At the time of this permit application is your source in compliance with all applicable requirements, and do you expect your source to remain in compliance with these requirements during the permit duration (with the exception noted in item C)?

_X_ Yes __ No

2. Will your source be in compliance with all applicable requirements scheduled to take effect during the term of the permit, and will they be met by the applicable deadline?

_X_ Yes __ No

B.__ If you checked "No" for any question in Part A, please attach information identifying the requirement(s) and emission units for which compliance is not achieved, briefly describe how compliance will be achieved with the applicable requirement(s), and provide a detailed Schedule of Compliance (i.e., a schedule of remedial measures, including an enforceable sequence of actions with milestones and projected compliance dates). Title this portion of the document "Schedule M: Compliance Information". Indicate the frequency for submittal of progress reports (at least every six (6) months) and the starting date for submittal of progress reports.

C.__ Do you have scheduled shutdown of control equipment for maintenance while the emission units are still operating?

__ Yes _X_ No

If yes, attach a description of the equipment that will be taken out of service, what pollutants and emission sources are affected, the schedule and duration of the shutdown, and what actions will be taken to minimize emissions.

SECTION 8: OTHER PERMITS

Do you own or are you related to any other permitted company in Pennsylvania?

__ Yes _X_ No

If so, please list the company names:

SECTION 9: COMPLIANCE CERTIFICATION

You are required to submit a certificate of compliance with all applicable requirements and a method of determining compliance with those requirements (CEMS, monitoring, tests, record keeping and other reporting). Compliance certifications are to be submitted at least on an annual basis. Please answer the following:

Schedule for Submission of Compliance Certification during the term of the permit:

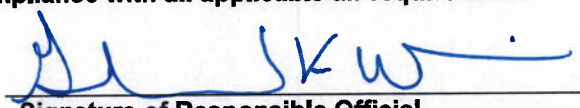
__X__ We will submit a Compliance Certification annually at the same time as the submittal of the annual administrative fee. OR

___ Beginning on: __ /__ /__

CERTIFICATION OF COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS

A "responsible official" must sign this certification. Applications without original signed certifications or necessary corporate authorizations will be returned as incomplete.

Except for the requirements identified in Section 7 for which compliance is not yet achieved, I hereby certify that, based on information and belief formed after reasonable inquiry, the source identified in this application is in compliance with all applicable air requirements.



Signature of Responsible Official

Glenda K. Wehrli, Director of Environmental Compliance & Employee Safety

Name and Title of Signer (Print or Type)

3100 Grand Avenue

Mailing Address (Street # and Name or P. O. Box #, RR #, RD #, Box #)

Pittsburgh, PA 15225

City, State, and Zip Code + Extension

Date: 3/17/2023

SECTION 10: SYNTHETIC MINOR

A Major source may, at its option, choose to place limits on its operation or emissions in order to become a "Synthetic Minor" source, and not be subject to the additional requirements of a Major source. These limits will become permit restrictions and will be federally enforceable.

Does this application include any requested restrictions?
_X_ Yes __ No

If so, have these restrictions caused this site to go below Major source thresholds and become a Synthetic Minor?
_X_ Yes ___ No

Is this facility requesting to become a Synthetic Minor source?
_X_ Yes __ No
(Please check the box on the top of page 1 as well.)

Be sure to include on each source information sheets, Forms A, B, and C, a complete description of the limitations that make this source a Synthetic Minor. Attach extra pages, if needed.

SECTION 11: INFORMATION FOR INSTALLATION PERMITS

Is this a new Major source or Major Modification for any criteria pollutant which is in or impacting a non-attainment area?
__ Yes _X_ No

If yes, list below for which pollutant(s).

Attach all required documents required under Article XXI, sections 2102.05 and 2102.06.

Is this a new Major source or Major Modification for any criteria pollutant which is in or impacting an attainment area or unclassified area?
__ Yes _X_ No

If yes, list below for which pollutant(s).

Attach all required documents required under Article XXI, sections 2102.05 and 2102.07.

A source applying for a Minor Installation Permit may request public review at this time.

Are you requesting public review for a Minor Installation Permit?

__ Yes __ No

SECTION 12: ALTERNATIVE OPERATING SCENARIOS

This permit allows for certain flexibility in operations. Please note the explanation of this section in the instructions. While filling out your permit application, consider all the different operating scenarios you might want to operate under during the 5-year term of your permit. This may include a change in inks or solvents, operating schedules, or other expected departures from operations that cannot be adequately described in the main body of the permit application.

Do you seek approval of any alternative operating scenario?

__ Yes _X_ No

If "Yes": Complete Form N to provide complete information for each alternative operating scenario to be employed at this location. Duplicate pages as needed.

Please note that there may be additional reporting requirements for alternative scenarios.

SECTION 13: ADDITIONAL SUBMITTALS

A form must be submitted for each process, boiler, incinerator, etc., as indicated below. Provide the numbers of each type of unit below, and submit the designated form for each unit. Also, identify each criteria pollutant and other regulated pollutant emitted by this source (facility). See Article XXI, definition of hazardous air pollutant and section 2101.10. Include also other pollutants not regulated, but with known emission rates. Provide the total below, and submit an emissions summary for each pollutant. List below all attachments made for this application. All applicable forms must be attached to each copy of the application.

_1_ Number of Processes - Submit one Form A for each process. Number each P001, P002, etc.
_1_ Number of Boilers - Submit one Form B for each boiler. Number each B001, B002, etc.
__ Number of Incinerators - Submit Form C for each incinerator. Number each I001, I002, etc.
6 tanks / 3 Groups Number of storage tanks - Submit one Form D for each tank or group of tanks. Number each D001, D002, etc.
__ Dry bulk materials storage and handling - Submit Form E.
_X_ Roads and vehicles - Submit Form F.
_X_ Miscellaneous fugitive emissions - Submit Form G.
_1_ Number of Form F: Roads and Vehicles.
_1_ Number of Form G: Miscellaneous Fugitive Emissions.
_1_ Number of Form K: One Emissions Summary Form for Each Pollutant.
__ Number of Form M: One Form M for each.
__ Number of Form N: One Form N for each scenario.

Are map(s)/drawing(s) attached? _X_ Yes __ No

Are required documents attached pertaining to an Installation Permit? __ Yes __ No

Are other comments/notes attached? _X_ Yes __ No

Is a **Best Available Control Technology (BACT) analysis attached for installations?** __ Yes __ No

Is a **Compliance Assurance Monitoring** (CAM) **Plan** (40 CFR Part 64) attached? (applicable to Title V Operating Permit Renewals.) __ Yes __ No

SECTION 14: ANNUAL APPLICATION / ADMINISTRATION FEE CALCULATION

(These fees are accurate from 01/012022 through 12/31/2025)

INSTALLATION PERMIT APPLICATION - Check all that pertain to this application:

If this source is applicable to more than one category listed below, it is subject to the **highest** of the applicable fees, not to the total.

A	☐	Prevention of Significant Deterioration ($32,500)
B	☐	Involving ACHD Development of a MACT Standard ($9,500)
C	☐	ACHD Establishment of a MACT standard ($9,500)
D	☐	Any source subject to an existing NSPS, NESHAP, or MACT ($2,500)
E	☐	Any other Installation Permit ($2,500)
F	☐	Modification to an existing Installation Permit ($1,500)

Installation Permit Fee $ 0

OPERATING PERMIT APPLICATION - Check all that pertain to this application:

A.	***Base fee*** (New Minor/Synthetic Minor Source - $2,500.00 / Major Source - $5,000.00): (Renewal Minor/Synthetic Minor Source - $2,100.00 / Major Source - $4,000.00)	$ 2,500
B.	**Hazardous Air Pollutant Source fee** - (Major Source only - if any "hazardous air pollutants" (see §2101.10) are listed on Form K, add 50% of operating permit fee.)	+$ 0
C.	**Acid Rain Source fee** (Major Source only - if any "acid rain" regulations are listed in Section 5, add 50% of operating permit fee.)	+$ 0
D.	**Adjusted Base fee -** Add A., B., and C.:	=$ 2,500
E.	**Noncomplying Source fee** (if "No" is checked in Section 7 Part A) Add 50% of the "Adjusted Base fee" from line D. above:	+$ 0
F.	**Total Fee Due** - Add D. and E.:	=$ 2,500

Additional, less frequently encountered, fees can be found on the ACHD website.

Checks are to be made payable to the "ACHD Air Pollution Control Fund."

All minor sources that apply for Operating Permits will be required to pay an annual maintenance fee of $500 for small minor sources, $2000.00 for minor sources, and $4,000 for synthetic minor sources. Major sources are also required to pay annual emissions fees. These are to be paid at the scheduled submittal of the annual emissions inventory.

SECTION 14. BILLING CONTACT			
First Name Glenda		M. I. K	Last Name Wehrli
Title	Director of Environmental Compliance & Employee Safety		
Telephone	412-771-7000 ext. 5033		FAX
Mailing Address (Street # and Name or P. O. Box #, Box #, RR #, RD #): 3100 Grand Avenue			
City Pittsburgh		State	Zip Code + Extension 15225
E-mail	gwehrli@metalico.com		

SECTION 15: SIGNATURES AND CERTIFICATION

CERTIFICATION OF COMPLETED APPLICATION

CERTIFICATION {for corporate applicants: Attach Certificate of Corporate Authority}

Subject to the penalties of Title 18 Pa. C.S. Section 4904 relating to unsworn falsification to authorities, I certify that I have the authority to submit this Permit Application on behalf of the applicant named herein and that the information provided in this Application is true and correct to the best of my knowledge and information.

Signature 3/17/2023 **Date**

Glenda K. Wehrli
Name – Print or Type

Director of Environmental Compliance & Employee Safety
Title – Print or Type

3100 Grande Avenue
Mailing Address – Print or Type

Pittsburgh, PA 15225
City, State, and Zip Code + Extension – Print or Type

(412) 771-7100 **Day Phone Number**

(412) 771-3340 **Fax Phone Number**

Signature of Preparer of Form (if different than applicant).

Signature

Name, Mailing Address, and Phone# - Print or Type

Thomas Samarco

Ramboll US Consulting, Inc.

1999 Broadway Suite 2225

Denver, CO 80202

{For corporations:
Certificate of Corporate Authority must be completed, by the Corporate Secretary, and attached}

CERTIFICATE OF CORPORATE AUTHORITY

I, Constance B. Jennings, certify that I am the Secretary of the corporation named above; that Glenda K. Wehrli, who has signed this document on behalf of the corporation was then Vice President of the said corporation; and that I know his/her signature and his/her signature is genuine; and that said Agreement was fully signed, sealed, and attested for and in behalf of said corporation by authority of its governing body.

ATTESTED TO BY: Constance B. Jennings DATE: 3/17/2023

{Signature}

NAME: Constance B. Jennings

{Print or type}

TITLE: Secretary + Treasurer

[AFFIX CORPORATE SEAL]

PERMIT APPLICATION FORM A
PROCESS OPERATIONS

PLANT NAME AND LOCATION: Metalico Pittsburgh, Inc.
3100 Grand Avenue Pittsburgh, PA 15225

PART I - DESCRIPTION OF PROCESS (MAKE A COPY OF SCHEDULE A FOR EACH PROCESS.)

Company Identification or Description: Scrap Metal Processor (P001)
Installer: Metso Texas Shredder Installation Date: 2004
Contractor (if operated by another): N/A

Design __ Charging or _X_ Production rate (specify units): 120 ton/hr (per Consent Order issued by USEPA on 12/9/2022 and signed on January 19, 2023)

Total Annual Production (specify units normally used): 240,000 tons/yr (per Consent Order issued by USEPA on 12/9/2022 and signed on January 19, 2023)

Raw Materials: Automobiles, appliances, miscellaneous light steel scrap, metal
Materials Produced: Ferrous and non-ferrous metals

Process Operation Units: (Name and Previous County Permit Number, if any)
(1.) Shredder
(2.) Material transfer, conveyance and sorting
(3.)
(4.)
(5.)
(6.)

Diagram of Process Flow: Attach a separate sheet with a drawing of a flow diagram of this process, labeling each segment listed under Process Operation Segments. Label product intake points and product discharge points for each segment. Label emissions discharge points and the location of emissions control devices.

PART II - PROCESS OPERATION SCHEDULE

A. Normal schedule: (Provide information for last year. If a new unit, please estimate) **As specified in Consent Order**
Hours/day 10 Days/week 5 Weeks/year 52 Hours/year 2,000
Start time __:__ End time __:__
Seasonal: Periods correspond to seasons instead of calendar quarters. The first season is split to include December, January, and February of the calendar year reported.

	Percent of Annual Production		
December, January, & February	25%	June, July, & August	25%
March, April, & May	25%	September, October, & November	25%

B. Requested limits: (Limitations on operating hours are optional.) Choose One:
__ 8760 hours (no limitations) or
_X_ I/We request the following limitation -- **This may become a federally enforceable permit condition:** Describe how this can be enforced: either list an operating schedule or downtime (e.g. only operate 8:00 to 4:00) or an operating hour reporting requirement.
_____ Total days x _____ Hours/day = 2,000 Hours/year

PART III – FUELS – Not Applicable

A. Normal operation (Provide information for last year. If a new unit, please estimate)

____ Year _____ or _____ Estimate	Primary	Secondary	Other	Other
Type:				
Max Amount/hour				
Sulfur Content (% wt):				
Ash Content (% wt):				
BTU Rating (specify units)				
Annual Fuel Consumption				
Seasonal Fuel Consumption (%):				
December, January, and February				
March, April, and May				
June, July, and August				
September, October, and November				

Fuel Mixing: If more than one fuel is used, explain usage, stating whether it is burned separately, mixed in a fixed ratio of__:__ (give units such as BTU, mmcf, gallons per ton, etc.), mixed in a variable ratio of__:__ to __:__, determined by __ (give reason).

B. Requested limits (limitations on operations are optional, but may allow a Major source to be exempted from some requirements) **These may become permit conditions.** Please check one:

__ Full use of any fuel or combination at any time (no limitations)

__ The following limitations on types of fuels or the combination of fuels are requested (describe how compliance with this method will be demonstrated)

PART IV - OTHER LIMITATIONS

Identify any other requested limitations, such as on production rates or materials use. Describe how compliance with these restrictions will be demonstrated. **These limitations may become permit conditions.**

Per Consent Order issued by USEPA on 12/9/2022 and signed on 1/19/2023, the facility requests to limit annual throughput rate to 240,000 tons/year. Additionally, an emission factor of 0.39 lb VOC per ton of shred feed (lb VOC/ton) will be used for all VOC emission calculations related to VOC emissions generated by the shredder. The proposed hours and throughput limitations and VOC emission factor will limit the potential VOC emissions to be less than 50 TPY.

Per Consent Order issued by USEPA on 12/9/2022 and signed on 1/19/2023, the facility will maintain the following records:

1. Maintain records of the total number of hours per day in which the shredder operates at an amperage draw equal to or greater than 200 amps using the shredder's exiting, or a functionally equivalent, amperage monitoring system. These instances should be reported to ACHD.
2. Daily record of the shredder feed shall be maintained using both it's scale house and product classification process, as assessed upon receipt of all materials arriving at the facility.
3. Develop and implement a Best Management Practice Plan following the requirements listed in the Consent Order. A BMP needs to be submitted annually to ACHD.

PART V - APPLICABLE REQUIREMENTS

Describe all applicable requirements affecting air emissions for this unit.

Regulation #	Requirements
Article XXI 2102.04	Installation Permits
Article XXI 2103.12	Issuance, Standard Conditions
Article XXI 2104.01	Visible Emissions
Article XXI 2105.03	Operation and Maintenance

PART VI - EMISSION CONTROLS

Complete the following applicable sections for each pollution control device. Attach additional sheets to provide sufficient information and engineering calculations to support the contol device performance.

On the space to the left of each device, number the device(s) by the order in which they process the waste stream(s). Fill out the requested information, then complete the table for efficiencies by pollutant for each device.

Percent Capture 99 % (not control efficiency)

Gas flow through control units 43,000 CFM @ ambient °F

N/A **BAGHOUSE (fabric collector)**

Manufacturer's Name and Model _____

Type of bag material _____

Total filter cloth area _____ sq. ft., air to cloth ratio _____

Bag cleaning method: _____, cycle _____ min

Pressure Drop: clean _____ "H_2O, dirty _____ "H_2O

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading

N/A **ELECTROSTATIC PRECIPITATOR**

Manufacturer's Name and Model: _____

Type: __ Single Stage, __ Two Stage, __ Plate, __ Tube

Total collecting area: _____ sq. ft., cleaning cycle _____ min.

Gas Velocity: _____ ft./sec. corona power _____ kw

Bulk resistivity of dust: _____ ohm-cm Moisture content of gases: _____ vol. %

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading

1 (Stack ID S001) **CYCLONE (dry gas only)**

Manufacturer's Name and Model: TSI 9' Cyclone – 43,000 CFM

Gas Inlet: width 2.21 ft., height 4.5 ft.

Diameter: gas outlet 4 x 2.5 ft., cyclone cylinder (s) 9 ft.

Length of cyclone: 16 ft., no. of cylinder(s) 1 Pressure Drop _____ "H_2O

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading
PM	99%	Please refer to the Process Flow Diagram in Appendix E	

PART VI - EMISSION CONTROLS (CONTINUED)

N/A **CONDENSER**

Manufacturer's Name and Model: _____

Type: surface _____ , contact _____

Heat transfer area: _____ sq. ft., max process pressure _____ psia

Heat duty: _____ BTU/hr. Coolant temp: inlet _____ °F outlet _____ °F

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Concentration (ppm)

N/A **WET COLLECTOR**

Manufacturer's Name and Model: _____

Type: __ venturi, __ cyclone, __ spray chamber, __ packed bed

Entrainment/separator: type _____ , bed depth _____

Type & construction of chemicals added to the scrubbing liquid:

Pressure drop _____ "H_2O

Scrubbing liquid: flow rate _____ gpm, inlet temp. _____ °F, outlet temp. _____ °F

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Concentration (ppm)

N/A **AFTERBURNER**

Manufacturer's Name and Model: _____

Type: __ direct flame, __ catalytic

If catalytic: inlet temp. _____ °F, outlet temp. _____ °F, catalyst life _____

If direct flame: internal volume _____ cu. ft., average temp. _____ °F

Residence time at average temp. _____ sec

Auxiliary fuel: max. rating _____ BTU/hr. set point _____ °F, _____ BTU/hr.

Size of Chamber _____ cu. ft., flow rate _____

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading (gn./cu. ft.)

N/A **ADSORPTION EQUIPMENT**

Manufacturer's Name and Model: _____

Type: __ Continuous, __ Fixed bed

Adsorbing material: _____ , Bed depth _____ in., Flow area _____ sq. ft.

Breakthrough (breakpoint) time: _____ , Pressure Drop: _____ "H_2O

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Concentration (ppm)

PART VI - EMISSION CONTROLS (CONTINUED)

2 **OTHER TYPES** Name and describe. Attach complete details.

H2O Injection System	Smart Water Injection System (WIS) – Model UK3WIS
	Direct water injection into the shredder enclosure. Water is injected to control dust within the shredder
	and dampen the shredded product to minimize dust emissions during subsequent conveyance and
	processing. The amount of water injected is controlled on shredder motor load and the injection rate
	is proportional to the load.

FUGITIVE DUST CONTROLS: Describe below or attach a complete explanation of all controls of fugitive emissions not discussed in Form E - Roads or Form F - Storage Piles.

The facility receives and separates material accordingly prior to processing. Incoming raw material feed stock includes. But is not limited to automobiles, appliances, and clean metal. Due to the size of the incoming material, very little fugitive emissions are expected from the storage of these items.

The feed stock is then processing through the scrap metal processing operation. The processed material is separated into storage piles, including, but not limited to, finished goods inventory (ferrous and non-ferrous commodities), "unshreddable" material, etc. The finished goods material is then loaded into barges, trucks, or railroad cars. "Unshreddable" material is moved to be sold.

In addition, frag material is wetted on an as need basis prior to barge loading operations to further help reduced fugitive emissions.

PART VII - STACK DATA

Stack data must be provided for each flue, duct, pipe, stack, chimney or conduit (stacks) at which collected emissions are vented to open air through a restricted opening.

Stack Identification: S001

UTM East _____ UTM North _____ or

Longitude _____ Latitude _____

Most important stacks have been located on topographic or air navigation charts. If you know the UTM coordinates or latitude and longitude, provide this information. If there is a number of stacks close together, a common location may be used

Stack Height: 24 ft. Ground level elevation 710 ft. Diameter 36 in. x 21 in. (rectangular) ft.

Material
Outer: Steel lining: _____

Exit temperature (°F): 92 Exit Velocity: 37 f/s.

Exhaust Rate: 11,000 (ACFM) % Moisture: 2

Nearest building to stack:
distance 10.5 ft. height 20.34 ft. length 15.5 ft. width 9.75 ft.

Processes Sharing Stack: If more than one process shares a stack, list them and estimate relative contribution of each.

Description _____
Contribution to emissions from stack _____ %
Description _____
Contribution to emissions from stack _____ %
Description _____
Contribution to emissions from stack _____ %
Description _____

PART VIII - REMARKS

Attach calculations and reference all emission factors for Allowable, Potential to Emit, and Actual Emissions to this sheet. Reference all emission factors and efficiencies of control equipment.

Please refer to the Emission Calculations in Appendix C.

PART IX - EMISSIONS

PART 9a: EMISSIONS -- SHORT TERM LB/HR (POUNDS PER HOUR) OR OTHER _____

Pollutant	PM	PM10	SO_2	CO	NO_X	VOC	LEAD	Organic HAPs
Allowable	13.06	13.06	--	--	--	46.80	--	1.33
Maximum Potential	13.06	13.06	--	--	--	46.80	--	1.33
Actual or Estimated (1)	10.69	10.69	--	--	--	35.95	--	1.02

Pollutant								
Allowable								
Maximum Potential								
Actual or Estimated								

PART 9b: EMISSIONS -- ANNUAL TPY (TONS PER YEAR)

Pollutant	PM	PM10	SO_2	CO	NO_X	VOC	LEAD	Organic HAPs
Allowable	13.06	13.06	--	--	--	46.80	--	1.33
Maximum Potential	13.06	13.06	--	--	--	46.80	--	1.33
Actual or Estimated (1)	7.37	7.37	--	--	--	25.23	--	0.72

Pollutant								
Allowable								
Maximum Potential								
Actual or Estimated								

(1) Actual emissions based on RY2022 EIS.

PART IX - EMISSIONS (CONTINUED)

List all known pollutants, including, but not limited to those found under Article XXI section 2101.20 in the definition of Hazardous Air Pollutants.

Transfer this information to the summary emissions sheets.

PM / PM_{10} / $PM_{2.5}$; VOC; Organic HAPs

PERMIT APPLICATION FORM B
FUEL BURNING OR COMBUSTION EQUIPMENT

PLANT NAME AND LOCATION: Metalico Pittsburgh, Inc.
3100 Grand Avenue Pittsburgh, PA 15225

Schedule B requires information on boilers, heaters, and other combustion units. Complete one form for each unit, making copies of this form as needed.

PART I - DESCRIPTION OF COMBUSTION UNIT (MAKE A COPY OF SCHEDULE B FOR EACH UNIT)

Company Identification or Description: Clean Burn Energy Systems
Unit Make: Clean Burn Coil Tube Boiler Unit Model: CB-500-CTB
Description of Unit and Type of Firing (e.g. spreader stoker, traveling grate, etc.)

Installer: Metalico PB Installation Date: 12 / 15 / 2017
Contractor (if operated by another): N/A
Installation Date: N/A / / Your Identification: N/A
Previous County Air Pollution Permit Number (if any): #0692
Rated Capacity (BTU/hr) 500,000 Maximum Capacity (BTU/hr): 500,000
Normal Use (BTU/hr) 500,000
Percent of Heat Used for:
Power Generation _____ % process 100 % space heating _____ % (Annual average)

PART II - OPERATION SCHEDULE

A. Normal schedule: (Provide information for last year. If a new unit, please estimate)
Hours/day 8 Days/week 5 Weeks/year 14 Hours/year 550
Start time __:__ End time __:__
Seasonal: (Periods correspond to seasons instead of calendar quarters. The first season is split to include December, January, and February of the calendar year reported.)

	Percent of Annual Production		
December, January, & February	60	June, July, & August	0
March, April, & May	20	September, October, & November	20

B. Requested limits: (limitations on operating hours are optional) Choose One:
X 8760 hours (no limitations) or
__ I/We request the following limitation -- **This may become a federally enforceable permit condition:** Describe how this can be enforced: Either list an operating schedule or downtime (e.g. only operate 8:00 to 4:00) or an operating hour reporting requirement.

Total days x	Hours/day =	Hours/year
_____	_____	_____

PART III - FUELS

A. Normal operation (Provide information for last year. If a new unit, please estimate)

X Year 2022 or ____ Estimate	Primary	Secondary	Other	Other
Type:	Waste Oil			
Max Amount/hour	3.3 GPH			
Sulfur Content (% wt):	1%			
Ash Content (% wt):	0.87%			
BTU Rating (specify units)	500,000 BTU/hr			
Annual Fuel Consumption	2,820 gal/yr			
Seasonal Fuel Consumption (%):				
December, January & February	60			
March, April, and May	20			
June, July, and August	0			
September, October, & November	20			

Fuel Mixing: If more than one fuel is used, explain usage, stating whether it is burned separately, mixed in a fixed ratio of__:__ (give units such as BTU, mmcf, gallons per ton, etc.), mixed in a variable ratio of__:__ to __:__, determined by __ (give reason).

B. Requested limits (limitations on operations are optional, but may allow a Major source to be exempted from some requirements) **These may become permit conditions**. Please check one:

_X_ Full use of any fuel or combination at any time (no limitations) OR

__ The following limitations on types of fuels or the combination of fuels (describe how compliance with this method will be demonstrated):

PART IV - OTHER LIMITATIONS

Identify any other requested limitations, such as on production rates or materials use. Describe how compliance with these restrictions will be demonstrated. **These limitations may become permit conditions.**

PART V - APPLICABLE REQUIREMENTS

Describe all applicable air requirements for this source.

Regulation #	Requirements
Article XXI 2105.31	Waste-Derived Liquid Fuel Specifications for contaminant concentrations and general permitting requirements.

PART VI - EMISSION CONTROLS – Not Applicable

Complete the following applicable sections for each pollution control device. Attach additional sheets to provide sufficient information and engineering calculations to support the contol device performance.

On the space to the left of each device, number the device(s) by the order in which they process the waste stream(s). Fill out the requested information, then complete the table for efficiencies by pollutant for each device.

Percent Capture _____ % (not control efficiency)
Gas flow through control units _____ @ _____ °F

_____ **BAGHOUSE (fabric collector)**

Manufacturer's Name and Model: _____
Type of bag material: _____
Total filter cloth area: _____ sq. ft. air to cloth ratio _____
Bag cleaning method: _____ cycle _____ minute(s)
Pressure Drop: clean _____ "H_2O, dirty _____ "H_2O

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading

_____ **ELECTROSTATIC PRECIPITATOR**

Manufacturer's Name and Model: _____
Type: __ single stage, __ two stage, __ plate, __ tube
Total collecting area: _____ sq. ft. cleaning cycle _____ min
Gas Velocity: _____ ft./sec. corona power _____ kw
Bulk resistivity of Dust: _____ ohm-cm Moisture content of gases _____ vol. %

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading

_____ **CYCLONE (dry gas only)**

Manufacturer's Name and Model: _____
Gas Inlet: width _____ ft., height _____ ft.
Diameter: gas outlet _____ ft., cyclone cylinder (s) _____ ft.
Length of cyclone: _____ ft., no. of cylinder(s) _____ Pressure Drop _____ "H_2O

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading

PART VI - EMISSION CONTROLS (CONTINUED) – Not Applicable

_____ CONDENSER

Manufacturer's Name and Model: _____

Type: surface _____ , contact _____

Heat transfer area: _____ sq. ft., max process pressure _____ psia

Heat duty: _____ BTU/hr. Coolant temp: inlet _____ °F outlet _____ °F

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Concentration (ppm)

_____ WET COLLECTOR

Manufacturer's Name and Model: _____

Type: __ venturi, __ cyclone, __ spray chamber, __ packed bed

Entrainment/separator: type _____ , bed depth: _____

Type & construction of chemicals added to the scrubbing liquid:

Pressure drop _____ "H_2O

Scrubbing liquid: flow rate _____ gpm, inlet temp. _____ °F, outlet temp. _____ °F

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Concentration (ppm)

_____ AFTERBURNER

Manufacturer's Name and Model: _____

Type: __ direct flame, __ catalytic

If catalytic: inlet temp. _____ °F, outlet temp. _____ °F, catalyst life _____

If direct flame: Internal volume _____ cu. ft., average temp. _____ °F

Residence time at average temp. _____ sec

Auxiliary fuel: max. rating _____ BTU/hr. set point _____ °F, _____ BTU/hr.

Size of Chamber _____ cu. ft. flow rate _____

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading (gn./cu. ft.)

_____ ADSORPTION EQUIPMENT

Manufacturer's Name and Model: _____

Type: __ continuous, __ fixed bed

Adsorbing material: _____ bed depth _____ in., flow area _____ sq. ft.

Breakthrough (breakpoint) time: _____ Pressure drop: _____ "H_2O

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Concentration (ppm)

PART VI - EMISSION CONTROLS (CONTINUED) – Not Applicable

_____ **OTHER TYPES:** Name and describe. Attach complete details.

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

FUGITIVE DUST CONTROLS: Describe below or attach a complete explanation of all controls of fugitive emissions not discussed in Form E - Roads or Form F - Storage Piles.

PART VII - STACK DATA

Stack data must be provided for each flue, duct, pipe, stack, chimney or conduit (stacks) at which collected emissions are vented to open air through a restricted opening.

Stack Identification: WOS-1

UTM East _____ UTM North _____ or

Longitude 80.108382 Latitude 40.507284

Most important stacks have been located on topographic or air navigation charts. If you know the UTM coordinates or latitude and longitude, provide this information. If there is a number of stacks close together, a common location may be used

Stack Height: 33 ft. Ground level elevation 718 ft. Diameter 0.83 ft.

Material Outer: Carbon Steel-Insulated Double Walled Lining: _____

Exit temperature (F): 250 Exit Velocity: 15.7 (f/s).

Exhaust rate: 470 (ACFM) % Moisture: _____

Nearest building to stack:

Distance 0 ft. height 25 ft. length 120 ft. width 48 ft.

Processes Sharing Stack: If more than one process shares a stack, list them and estimate relative contribution of each.

Description _____

Contribution to emissions from stack _____ %

Description _____

Contribution to emissions from stack _____ %

Description _____

Contribution to emissions from stack _____ %

Description _____

PART VIII - REMARKS

Attach calculations and reference all emission factors for Allowable, Potential to Emit, and Actual Emissions to this sheet. Reference all emission factors and efficiencies of control equipment.

Please refer to the Emission Calculations in Appendix C and the waste oil analysis in Appendix D.

PART IX - EMISSIONS

PART 9a: EMISSIONS -- SHORT TERM LB/HR (POUNDS PER HOUR) OR OTHER _____

Pollutant	Particulate	PM10	SO2	CO	NO_X	VOC	LEAD	
Allowable								
Maximum Potential	0.19	0.16	0.35	0.01	0.05	<0.01	--	
Actual or Estimated [1]	0.19	0.16	0.35	0.01	0.05	<0.01	--	

Pollutant								
Allowable								
Maximum Potential								
Actual or Estimated								

PART 9b: EMISSIONS -- ANNUAL TPY (TONS PER YEAR)

Pollutant	Particulate	PM10	SO2	CO	NOX	VOC	LEAD	
Allowable								
Maximum Potential	0.83	0.72	1.55	0.03	0.23	0.01	--	
Actual or Estimated [1]	0.08	0.07	0.15	<0.01	0.02	<0.01	--	

Pollutant								
Allowable								
Maximum Potential								
Actual or Estimated								

[1] Actual emissions based on RY2022 EIS.

PART IX - EMISSIONS (CONTINUED)

List all known pollutants, including, but not limited to those found under Article XXI section 2101.20 in the definition of Hazardous Air Pollutants.

Transfer this information to the summary emissions sheets.

PM / PM_{10} / $PM_{2.5}$; SO_2; CO; NOx; VOC

PERMIT APPLICATION FORM C
SOLID WASTE INCINERATOR
Not Applicable

PLANT NAME AND LOCATION: _____

Schedule C requires information on incinerators. Complete one form for each unit, making copies of this form as needed. Do not use this form for afterburners used as control devices.

PART I - DESCRIPTION OF COMBUSTION UNIT (MAKE A COPY OF SCHEDULE C FOR EACH UNIT)

Company Identification or Description: _____

Unit Make: _____ Model and Class: _____

American Incinerator Association Class of Waste _____ @ _____ BTU/lb as fired

Daily Amount Waste _____ Lbs. (__) Estimated, (__) Actual

Installer: _____ Installation Date: __ /__ /__

Contractor (if operated by another): _____

Installation Date: __ /__ /__ Your Identification: _____

Previous County Air Pollution Permit Number (if any): _____

Primary Combustion Chamber:	Length	_____	ft.	____	in.	Grate Area	_____ sq. ft.
	Width	_____	ft.	____	in.	Burner capacity	_____ BTU/hr
	Height	_____	ft.	____	in.	Hearth area	_____ sq. ft.
	Volume	_____	cu. ft.			Heat release	_____ BTU/hr/cu ft
Secondary Combustion Chamber:	Length	_____	ft.	____	in.	Smallest Area	_____ sq. ft.
	Width	_____	ft.	____	in.	Burner capacity	_____ BTU/hr
	Height	_____	ft.	____	in.	Max velocity	_____ ft/sec
	Volume	_____	cu. ft.				
	Flue Gas Flow	_____	acfm@	_____	°F	_____ %	% excess air

Attach a flow diagram of all waste and fuel streams

PART II - OPERATION SCHEDULE

A. Normal schedule: (Provide information for last year. If a new unit, please estimate)

Hours/day _____ Days/week _____ Weeks/year _____ Hours/year _____

Start time __:__ End time __:__

Seasonal: (Periods correspond to seasons instead of calendar quarters. The first season is split to include December, January, and February of the calendar year reported.)

Percent of Annual Production

December, January, & February _____ June, July, & August _____

March, April, & May _____ September, October, & November _____

B. Requested limits: (limitations on operating hours are optional) Choose One:

__ 8760 hours (no limitations) or

__ I/We request the following limitation – **This may become a federally enforceable permit condition:** Describe how this can be enforced: Either list an operating schedule or downtime (e.g. only operate 8:00 to 4:00) or an operating hour reporting requirement.

Total days x	Hours/day =	Hours/year
_____	_____	_____

PART III - FUELS

A. Normal operation (Provide information for last year. If a new unit, please estimate)

____ Year _____ or _____ Estimate

	Primary	Secondary	Other	Other
Type:	_____	_____	_____	_____
Max amount/hour	_____	_____	_____	_____
Sulfur content (% wt):	_____	_____	_____	_____
Ash content (% wt):	_____	_____	_____	_____
BTU Rating (specify units)	_____	_____	_____	_____
Annual Fuel Consumption	_____	_____	_____	_____
Seasonal Fuel Consumption (%):				
December, January and February	_____	_____	_____	_____
March, April, and May	_____	_____	_____	_____
June, July, and August	_____	_____	_____	_____
September, October, and November	_____	_____	_____	_____

Fuel Mixing: If more than one fuel is used, explain usage, stating whether it is burned separately, mixed in a fixed ratio of__:__ (give units such as BTU, mmcf, gallons per ton, etc.), mixed in a variable ratio of__:__ to __:__, determined by __ (give reason).

B. Requested limits (limitations on operations are optional, but may allow a Major source to be exempted from some requirements) **These may become permit conditions.** Please check one:

____ Full use of any fuel or combination at any time (no limitations) OR

____ The following limitations on individual fuels or the combination of fuels (describe how compliance with this method will be demonstrated):

PART IV - OTHER LIMITATIONS

Identify any other requested limitations, such as on production rates or materials use. Describe how compliance with these restrictions will be demonstrated. **These limitations may become permit conditions.**

PART V - APPLICABLE REQUIREMENTS

Describe all applicable air requirements for this source.

Regulation #	Requirements

PART VI - EMISSION CONTROLS

Complete the following applicable sections for each pollution control device. Attach additional sheets to provide sufficient information and engineering calculations to support the contol device performance.

On the space to the left of each device, number the device(s) by the order in which they process the waste stream(s). Fill out the requested information, then complete the table for efficiencies by pollutant for each device.

Percent Capture _____ % (not control efficiency)
Gas flow through control units _____ @ _____ °F

_____ **BAGHOUSE (fabric collector)**

Manufacturer's Name and Model: _____
Type of bag material: _____
Total filter cloth area: _____ sq. ft. air to cloth ratio _____
Bag cleaning method: _____ cycle _____ min
Pressure Drop: clean _____ "H_2O, dirty _____ "H_2O

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading Corr. To 7% O_2 (gn/cu. ft)

_____ **ELECTROSTATIC PRECIPITATOR**

Manufacturer's Name and Model: _____
Type: __ single stage, __ two stage, __ plate, __ tube
Total collecting area: _____ sq. ft. cleaning cycle _____ min
Gas Velocity: _____ ft./sec. corona power _____ kw
Bulk resistivity of Dust: _____ ohm-cm Moisture Content of gases _____ vol. %

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading Corr. To 7% O_2 (gn/cu. ft)

_____ **CYCLONE (dry gas only)**

Manufacturer's Name and Model: _____
Gas inlet: width _____ ft., height _____ ft.
Diameter: gas outlet _____ ft., cyclone cylinder (s) _____ ft.
Length of cyclone: _____ ft., no. of cylinder(s) _____ Pressure Drop _____ "H_2O

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading Corr. To 7% O_2 (gn/cu. ft)

PART VI - EMISSION CONTROLS (CONTINUED)

_____ CONDENSER

Manufacturer's Name and Model: _____

Type: surface _____ , contact _____

Heat transfer area: _____ sq. ft., Max process pressure _____ psia

Heat duty: _____ BTU/hr. Coolant temp: inlet _____ °F, outlet _____ °F

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Concentration (ppm)

_____ WET COLLECTOR

Manufacturer's Name and Model: _____

Type: __ venturi, __ cyclone, __ spray chamber, __ packed bed

Entrainment/separator: type _____ , bed depth: _____

Type & construction of chemicals added to the scrubbing liquid:

Pressure drop _____ "H_2O

Scrubbing liquid: flow rate _____ gpm, inlet temp. _____ °F, outlet temp. _____ °F

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Concentration (ppm)

_____ AFTERBURNER

Manufacturer's Name and Model: _____

Type: __ direct flame, __ catalytic

If catalytic: inlet temp. _____ °F, outlet temp. _____ °F, catalyst life _____

If direct flame: internal volume _____ cu. ft., average temp. _____ °F

Residence time at average temp. _____ sec

Auxiliary fuel: max. rating _____ BTU/hr. set point _____ °F, _____ BTU/hr.

Size of Chamber _____ cu. ft. flow rate _____

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Grain Loading Corr. To 7% O_2 (gn/cu. ft)

_____ ADSORPTION EQUIPMENT

Manufacturer's Name and Model: _____

Type: __ continuous, __ fixed bed

Adsorbing material: _____ bed depth _____ in., flow area _____ sq. ft.

Breakthrough (breakpoint) time: _____ Pressure drop: _____ "H_2O

Pollutant	Efficiency (%)	Basis for Efficiency	Outlet Concentration (ppm)

PART VI - EMISSION CONTROLS (CONTINUED)

_____ **OTHER TYPES** Name and describe. Attach complete details.

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

FUGITIVE DUST CONTROLS: Describe below or attach a complete explanation of all controls of fugitive emissions not discussed in Form E - Roads or Form F - Storage Piles.

PART VII - STACK DATA

Stack data must be provided for each flue, duct, pipe, stack, chimney or conduit (stacks) at which collected emissions are vented to open air through a restricted opening.

Stack Identification: _____

UTM East _____ UTM North _____ or

Longitude _____ Latitude _____

Most important stacks have been located on topographic or air navigation charts. If you know the UTM coordinates or latitude and longitude, provide this information. If there is a number of stacks close together, a common location may be used

Stack Height: _____ Ft. Ground level elevation _____ Ft. Diameter _____ Ft.

Material

Outer: _____ Lining: _____

Exit temperature (F): _____ Exit Velocity: _____ (f/s)

(ACFM) %

Exhaust Rate: _____ Moisture: _____

Nearest building to stack:

distance _____ ft. height _____ ft. length _____ ft. width _____ Ft.

Processes Sharing Stack: If more than one process shares a stack, list them and estimate relative contribution of each.

Description _____

Contribution to emissions from stack _____ %

Description _____

Contribution to emissions from stack _____ %

Description _____

Contribution to emissions from stack _____ %

Description _____

PART VIII - REMARKS

Attach calculations and reference all emission factors for Allowable, Potential to Emit, and Actual Emissions to this sheet. Reference all emission factors and efficiencies of control equipment.

PART IX - EMISSIONS

PART 9a: EMISSIONS -- SHORT TERM LB/HR (POUNDS PER HOUR) OR OTHER _____

Pollutant	PM	PM10	SO_2	CO	NO_X	VOC	LEAD	
Allowable								
Maximum Potential								
Actual or Estimated								

Pollutant								
Allowable								
Maximum Potential								
Actual or Estimated								

PART 9b: EMISSIONS -- ANNUAL TPY (TONS PER YEAR)

Pollutant	PM	PM10	SO_2	CO	NO_X	VOC	LEAD	
Allowable								
Maximum Potential								
Actual or Estimated								

Pollutant								
Allowable								
Maximum Potential								
Actual or Estimated								

PART IX - EMISSIONS (CONTINUED)

List all known pollutants, including, but not limited to those found under Article XXI section 2101.20 in the definition of Hazardous Air Pollutants.

Transfer this information to the summary emissions sheets.

PERMIT APPLICATION FORM D
STORAGE TANKS

Tanks situated at a common location in the facility and storing the same materials, or vented through a common control device may be grouped together for reporting purposes if the emissions from individual tanks are small. A diagram should be attached showing the locations of grouped tanks. A separate listing should be provided for Part I for each tank. Part II and estimates of emissions should be for the group. Emissions from liquid or gas storage tanks that condense to form solids in ambient air should be included in emissions estimates as particulate TSP and/or PM10.

PART I - DESCRIPTION OF STORAGE TANKS (MAKE A COPY OF SCHEDULE E FOR EACH STORAGE TANK)

Company Identification or Description: Metals Department: 1,000-gal On-Road Diesel Tank

Installer: _____ Installation Date: __ / __ / ____

Prior Allegheny County Air Pollution Permit No. #0692

Capacity 1,000 gal (specify units) Age: _____ (years)

Diameter 4 (ft) Height 10.67 (ft)

Paint Color Gray Loading Type Top Fill Neck

Materials Normally Used

Common Name On-Road Diesel Chemical Name N/A

Chemical Abstract Service # N/A Liquid Molecular Weight _____

Vapor Pressure 0.019 psia at ambient (temperature)

Type of tank (check appropriate spaces):

Underground _____ Pressure Tank _____ Surface X

If the tank is a surface tank:

____ No Roof

X Fixed Roof

Roof Paint Color Gray Shell Paint Color Gray / Medium

Paint Condition Average Average Vapor Space Height 1.57 (ft)

Pressure Relief Valve Setting:

Pressure N/A psia

Vacuum N/A

Vapor Recovery System (Description) – N/A

Control Efficiency N/A %

Gas Blanketing System Gas _____ Amt Used _____

____ Floating Roof (specify internal or external floating roof.)

____ External Floating Roof

Primary Seal Type _____

Secondary Seal Type _____

____ Internal Floating Roof

Primary Seal Type _____

Deck Construction Type _____

Tank Construction Type _____

PERMIT APPLICATION FORM D
STORAGE TANKS

Tanks situated at a common location in the facility and storing the same materials, or vented through a common control device may be grouped together for reporting purposes if the emissions from individual tanks are small. A diagram should be attached showing the locations of grouped tanks. A separate listing should be provided for Part I for each tank. Part II and estimates of emissions should be for the group. Emissions from liquid or gas storage tanks that condense to form solids in ambient air should be included in emissions estimates as particulate TSP and/or PM10.

PART I - DESCRIPTION OF STORAGE TANKS (MAKE A COPY OF SCHEDULE E FOR EACH STORAGE TANK)

Company Identification or Description: Metals Department: 3,000-gal Off-Road Diesel Tank (Tank ID 779081)

Installer: _____ Installation Date: __/__/____

Prior Allegheny County Air Pollution Permit No. #0692

Capacity 3,000 gal (specify units) Age: _____ (years)

Diameter 5.33 (ft) Height 18.17 (ft)

Paint Color Red Loading Type Top Fill Neck

Materials Normally Used

Common Name On-Road Diesel Chemical Name N/A

Chemical Abstract Service # N/A Liquid Molecular Weight _____

Vapor Pressure 0.008 psia at ambient (temperature)

Type of tank (check appropriate spaces):

Underground _____ Pressure Tank _____ Surface X

If the tank is a surface tank:

____ No Roof

X Fixed Roof

Roof Paint Color Red Shell Paint Color Red

Paint Condition Average Average Vapor Space Height 2.09 (ft)

Pressure Relief Valve Setting:

Pressure N/A psia

Vacuum N/A

Vapor Recovery System (Description) – N/A

Control Efficiency N/A %

Gas Blanketing System Gas _____ Amt Used _____

____ Floating Roof (specify internal or external floating roof.)

____ External Floating Roof

Primary Seal Type _____

Secondary Seal Type _____

____ Internal Floating Roof

Primary Seal Type _____

Deck Construction Type _____

Tank Construction Type _____

PERMIT APPLICATION FORM D
STORAGE TANKS

Tanks situated at a common location in the facility and storing the same materials, or vented through a common control device may be grouped together for reporting purposes if the emissions from individual tanks are small. A diagram should be attached showing the locations of grouped tanks. A separate listing should be provided for Part I for each tank. Part II and estimates of emissions should be for the group. Emissions from liquid or gas storage tanks that condense to form solids in ambient air should be included in emissions estimates as particulate TSP and/or PM10.

PART I - DESCRIPTION OF STORAGE TANKS (MAKE A COPY OF SCHEDULE E FOR EACH STORAGE TANK)

Company Identification or Description: Metals Department: 3,000-gal Off-Road Diesel Tank (Tank ID 779081)

Installer: _____ Installation Date: __/__/____

Prior Allegheny County Air Pollution Permit No. #0692

Capacity 3,000 gal (specify units) Age: _____ (years)

Diameter 5.33 (ft) Height 18.17 (ft)

Paint Color Red Loading Type Top Fill Neck

Materials Normally Used

Common Name Off-Road Diesel Chemical Name N/A

Chemical Abstract Service # N/A Liquid Molecular Weight _____

Vapor Pressure 0.008 psia at ambient (temperature)

Type of tank (check appropriate spaces):

Underground _____ Pressure Tank _____ Surface X

If the tank is a surface tank:

_____ No Roof

X Fixed Roof

Roof Paint Color Red Shell Paint Color Red

Paint Condition Average Average Vapor Space Height 2.09 (ft)

Pressure Relief Valve Setting:

Pressure N/A psia

Vacuum N/A

Vapor Recovery System (Description) – N/A

Control Efficiency N/A %

Gas Blanketing System Gas _____ Amt Used _____

_____ Floating Roof (specify internal or external floating roof.)

_____ External Floating Roof

Primary Seal Type _____

Secondary Seal Type _____

_____ Internal Floating Roof

Primary Seal Type _____

Deck Construction Type _____

Tank Construction Type _____

PERMIT APPLICATION FORM D
STORAGE TANKS

Tanks situated at a common location in the facility and storing the same materials, or vented through a common control device may be grouped together for reporting purposes if the emissions from individual tanks are small. A diagram should be attached showing the locations of grouped tanks. A separate listing should be provided for Part I for each tank. Part II and estimates of emissions should be for the group. Emissions from liquid or gas storage tanks that condense to form solids in ambient air should be included in emissions estimates as particulate TSP and/or PM10.

PART I - DESCRIPTION OF STORAGE TANKS (MAKE A COPY OF SCHEDULE E FOR EACH STORAGE TANK)

Company Identification or Description: Metals Department: 3,000-gal Off-Road Diesel Tank (Tank ID 779080)

Installer: _____ Installation Date: __/__/____

Prior Allegheny County Air Pollution Permit No. #0692

Capacity 3,000 gal (specify units) Age: _____ (years)

Diameter 5.33 (ft) Height 18.17 (ft)

Paint Color Yellow (Beige) Loading Type Top Fill Neck

Materials Normally Used

Common Name Off-Road Diesel Chemical Name N/A

Chemical Abstract Service # N/A Liquid Molecular Weight _____

Vapor Pressure 0.008 psia at ambient (temperature)

Type of tank (check appropriate spaces):

Underground _____ Pressure Tank _____ Surface X

If the tank is a surface tank:

____ No Roof

X Fixed Roof

Roof Paint Color Yellow (Beige) Shell Paint Color Yellow (Beige)

Paint Condition Average Average Vapor Space Height 2.09 (ft)

Pressure Relief Valve Setting:

Pressure N/A psia

Vacuum N/A

Vapor Recovery System (Description) – N/A

Control Efficiency N/A %

Gas Blanketing System Gas _____ Amt Used _____

____ Floating Roof (specify internal or external floating roof.)

____ External Floating Roof

Primary Seal Type _____

Secondary Seal Type _____

____ Internal Floating Roof

Primary Seal Type _____

Deck Construction Type _____

Tank Construction Type _____

PERMIT APPLICATION FORM D
STORAGE TANKS

Tanks situated at a common location in the facility and storing the same materials, or vented through a common control device may be grouped together for reporting purposes if the emissions from individual tanks are small. A diagram should be attached showing the locations of grouped tanks. A separate listing should be provided for Part I for each tank. Part II and estimates of emissions should be for the group. Emissions from liquid or gas storage tanks that condense to form solids in ambient air should be included in emissions estimates as particulate TSP and/or PM10.

PART I - DESCRIPTION OF STORAGE TANKS (MAKE A COPY OF SCHEDULE E FOR EACH STORAGE TANK)

Company Identification or Description: Shredder Department: 3,000-gal Used Oil Tank

Installer: _____ Installation Date: __/__/____

Prior Allegheny County Air Pollution Permit No. #0692

Capacity 3,000 gal (specify units) Age: 20+ (years)

Diameter 5.50 (ft) Height 12 (ft)

Paint Color Yellow (Beige) Loading Type Top Fill Neck

Materials Normally Used

Common Name Used Oil Chemical Name N/A

Chemical Abstract Service # N/A Liquid Molecular Weight _____

Vapor Pressure 0.008 psia at ambient (temperature)

Type of tank (check appropriate spaces):

Underground _____ Pressure Tank _____ Surface X

If the tank is a surface tank:

____ No Roof

X Fixed Roof

Roof Paint Color Yellow (Beige) Shell Paint Color Yellow (Beige)

Paint Condition Average Average Vapor Space Height 2.16 (ft)

Pressure Relief Valve Setting:

Pressure N/A psia

Vacuum N/A

Vapor Recovery System (Description) – N/A

Control Efficiency N/A %

Gas Blanketing System Gas _____ Amt Used _____

____ Floating Roof (specify internal or external floating roof.)

____ External Floating Roof

Primary Seal Type _____

Secondary Seal Type _____

____ Internal Floating Roof

Primary Seal Type _____

Deck Construction Type _____

Tank Construction Type _____

PERMIT APPLICATION FORM D
STORAGE TANKS

Tanks situated at a common location in the facility and storing the same materials, or vented through a common control device may be grouped together for reporting purposes if the emissions from individual tanks are small. A diagram should be attached showing the locations of grouped tanks. A separate listing should be provided for Part I for each tank. Part II and estimates of emissions should be for the group. Emissions from liquid or gas storage tanks that condense to form solids in ambient air should be included in emissions estimates as particulate TSP and/or PM10.

PART I - DESCRIPTION OF STORAGE TANKS (MAKE A COPY OF SCHEDULE E FOR EACH STORAGE TANK)

Company Identification or Description: Shredder Department: 10,000-gal Off-Road Diesel Tank (Tank ID 891695)

Installer: Highland Tank & Mfg. Co. Installation Date: 12/9 /2004

Prior Allegheny County Air Pollution Permit No. #0692

Capacity 10,000 gal (specify units) Age: 16 (years)

Diameter 10 (ft) Height 17 (ft)

Paint Color White Loading Type Stand Pipe

Materials Normally Used

Common Name Off-Road Diesel Chemical Name N/A

Chemical Abstract Service # N/A Liquid Molecular Weight

Vapor Pressure 0.008 psia at ambient (temperature)

Type of tank (check appropriate spaces):

Underground ____ Pressure Tank ____ Surface X

If the tank is a surface tank:

____ No Roof

X Fixed Roof

Roof Paint Color White Shell Paint Color White

Paint Condition Average Average Vapor Space Height 3.93 (ft)

Pressure Relief Valve Setting:

Pressure N/A psia

Vacuum N/A

Vapor Recovery System (Description) – N/A

Control Efficiency N/A %

Gas Blanketing System Gas ____ Amt Used ____

____ Floating Roof (specify internal or external floating roof.)

____ External Floating Roof

Primary Seal Type ____

Secondary Seal Type ____

____ Internal Floating Roof

Primary Seal Type ____

Deck Construction Type ____

Tank Construction Type ____

PERMIT APPLICATION FORM D
STORAGE TANKS

Tanks situated at a common location in the facility and storing the same materials, or vented through a common control device may be grouped together for reporting purposes if the emissions from individual tanks are small. A diagram should be attached showing the locations of grouped tanks. A separate listing should be provided for Part I for each tank. Part II and estimates of emissions should be for the group. Emissions from liquid or gas storage tanks that condense to form solids in ambient air should be included in emissions estimates as particulate TSP and/or PM10.

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Installer: Highland Tank & Mfg. Co. Installation Date: 12/9 /2004

Prior Allegheny County Air Pollution Permit No. #0692

Capacity 10,000 gal (specify units) Age: 16 (years)

Diameter 10 (ft) Height 17 (ft)

Paint Color White Loading Type Stand Pipe

Materials Normally Used

Common Name On-Road Diesel Chemical Name N/A

Chemical Abstract Service # N/A Liquid Molecular Weight

Vapor Pressure 0.019 psia at ambient (temperature)

Type of tank (check appropriate spaces):

Underground _____ Pressure Tank _____ Surface X

If the tank is a surface tank:

____ No Roof

X Fixed Roof

Roof Paint Color White Shell Paint Color White

Paint Condition Average Average Vapor Space Height 3.93 (ft)

Pressure Relief Valve Setting:

Pressure N/A psia

Vacuum N/A

Vapor Recovery System (Description) – N/A

Control Efficiency N/A %

Gas Blanketing System Gas _____ Amt Used _____

____ Floating Roof (specify internal or external floating roof.)

____ External Floating Roof

Primary Seal Type _____

Secondary Seal Type _____

____ Internal Floating Roof

Primary Seal Type _____

Deck Construction Type _____

Tank Construction Type _____

PART II - OPERATING SCHEDULE – On-Road Diesel

Throughput (specify units):
Annual 73,000 gal/yr Daily 200 gal/day

Maximum turnovers per year: 7.01

Seasonal: Periods correspond to seasons instead of calendar quarters. The first season is split to include December, January, and February.

Seasonal Percentage of Total Throughput:

December, January, & February	25	%	June, July, & August	25	%
March, April, & May	25	%	September, October, & November	25	%

Dates tank is not normally in use: from __/__/__ TO __/__/__

PART III - CONTROL DEVICES – Not Applicable

Describe any control devices, including any gas blanketing system noted above.

PART IV - EMISSIONS - ANNUAL TPY

Pollutant	PM	PM10	SO_2	CO	NO_X	VOC	LEAD	
Allowable								
Maximum Potential						<0.01		
Actual or Estimated						<0.01		

Pollutant								
Allowable								
Maximum Potential								
Actual or Estimated								

List all known pollutants, including, but not limited to those found under Article XXI section 2101.20 in the definition of Hazardous Air Pollutants.

Transfer this information to the summary emissions sheets.

PART II - OPERATING SCHEDULE – Off-Road Diesel

Throughput (specify units):
Annual 113,200 gal/yr Daily 310 gal/day

Maximum turnovers per year: 7.51

Seasonal: Periods correspond to seasons instead of calendar quarters. The first season is split to include December, January, and February.

Seasonal Percentage of Total Throughput:

December, January, & February	25	%	June, July, & August	25	%
March, April, & May	25	%	September, October, & November	25	%

Dates tank is not normally in use: from __/__/__ TO __/__/__

PART III - CONTROL DEVICES – Not Applicable

Describe any control devices, including any gas blanketing system noted above.

PART IV - EMISSIONS - ANNUAL TPY

Pollutant	PM	PM10	SO_2	CO	NO_X	VOC	LEAD	
Allowable								
Maximum Potential						<0.01		
Actual or Estimated						<0.01		

Pollutant								
Allowable								
Maximum Potential								
Actual or Estimated								

List all known pollutants, including, but not limited to those found under Article XXI section 2101.20 in the definition of Hazardous Air Pollutants.

Transfer this information to the summary emissions sheets.

PART II - OPERATING SCHEDULE – Used Oil

Throughput (specify units):
Annual 20,400 gal/yr Daily 56 gal/day

Maximum turnovers per year: 9.56

Seasonal: Periods correspond to seasons instead of calendar quarters. The first season is split to include December, January, and February.

Seasonal Percentage of Total Throughput:

December, January, & February	25	%	June, July, & August	25	%
March, April, & May	25	%	September, October, & November	25	%

Dates tank is not normally in use: from __/__/__ TO __/__/__

PART III - CONTROL DEVICES – Not Applicable

Describe any control devices, including any gas blanketing system noted above.

PART IV - EMISSIONS - ANNUAL TPY

Pollutant	PM	PM10	SO_2	CO	NO_X	VOC	LEAD	
Allowable								
Maximum Potential						<0.01		
Actual or Estimated						<0.01		

Pollutant								
Allowable								
Maximum Potential								
Actual or Estimated								

List all known pollutants, including, but not limited to those found under Article XXI section 2101.20 in the definition of Hazardous Air Pollutants.

Transfer this information to the summary emissions sheets.

PERMIT APPLICATION FORM E
DRY BULK MATERIALS STORAGE AND HANDLING
Not Applicable

This form reports particulate emissions from wind erosion of bulk materials stockpiles, from additions and retrievals of material, and from stockpile maintenance. It includes materials stored under cover and in silos. Storage piles including hazardous materials such as lead compounds or asbestos should be reported here. A separate form should be prepared for each stockpile. Mining, excavation, crushing, and other materials processing should be treated as processes and reported on Form A.

PART I - DESCRIPTION OF STORAGE PILE (MAKE A COPY OF SCHEDULE E FOR EACH STORAGE PILE)

Open and enclosed stockpiles of raw materials, intermediate products, and finished products should be reported. Include silos in reporting types of stockpile covering.

Company Identification or Description: _____

UTM East: _____ UTM North: _____ (center of pile)

Type of Material Stored (Generic Name): _____

Major Chemical Components (list, with percentages of each):

Moisture Content: _____ % Silt Content: _____ %

Height of Pile (give units): _____

Uncovered: _____ acres or _____ square feet

If covered or enclosed:

Type of cover: _____

Estimated Control Efficiency: _____ %

PART II - STORAGE PILE TRANSFERS

For the purpose of this schedule, stockpile transfers include either adding material onto a pile and removal of material from a pile. This schedule does not include loading or unloading from barges, rail cars or other transport, or transportation and marketing of dry materials, which should be reported as processes on Form A.

Normal Inventory: _____ (Tons)

Estimated	Additions (tons)	Retrievals
December, January, and February		
March, April, and May		
June, July, and August		
September, October, and November		
Annual storage losses (tons)		

PART III - EQUIPMENT

Immobile equipment or equipment that is dedicated to the particular stockpile should be reported as fixed or dedicated units. Mobile equipment or equipment that may be moved to another area of the plant should be reported as transient or mobile units. This may include bulldozers, backhoes, or other large, mobile equipment that works on or around a stockpile. Percent utilization is the percentage of operating time (hours divided by annual hours) that equipment is in operation on the storage pile.

Fixed or Dedicated Units

	Name	Size (Capacity)	% Utilization
(1.)			
(2.)			
(3.)			
(4.)			
(5.)			
(6.)			

Transient or Mobile Units

	Name	Size (Capacity)	% Utilization
(1.)			
(2.)			
(3.)			
(4.)			
(5.)			
(6.)			

PART IV - DUST CONTROL MEASURES (describe):

PART V - EMISSION ESTIMATES

A. Wind Erosion

	PM10		TSP	
	Lb./hr.	TPY	Lb./hr.	TPY
Uncontrolled				
Controlled				

B. Stockpile Activity (Storage and Retrieval)

	PM10		TSP	
	Lb./hr.	TPY	Lb./hr.	TPY
Uncontrolled				
Controlled				

C. Stockpile Activity Maintenance

	PM10		TSP	
	Lb./hr.	TPY	Lb./hr.	TPY
Uncontrolled				
Controlled				

Attach calculations and reference all emission factors for Allowable, Potential to Emit, and Actual emissions for this sheet. Reference all emission factors and efficiencies of control equipment.

PERMIT APPLICATION FORM F
ROADS AND VEHICLES

This form covers fugitive emissions from vehicles and vehicle travel on paved and unpaved roads and parking lots within the plant property. Plants with only normal business traffic of light duty vehicles and paved parking lots with capacity less than one hundred cars are not required to submit Form F.

PART I - ROADS

Paved Roads: 0.38 (miles) Unpaved Roads: 0.75 (miles)

Parking Lots (area): ~9.8 acres (specify units)

PART II - VEHICLES

Light-Duty Gasoline Vehicles (LDGV) 663 (average weekly number)

Estimated Total Vehicle Miles Traveled 12,925 VMT/yr

Seasonal Usage (%)	Paved Areas	Unpaved Areas
December, January, and February	20	5
March, April, and May	20	5
June, July, and August	20	5
September, October, and November	20	5
Annual Storage Losses (tons)		

Heavy-Duty Gasoline Vehicles (HDGV) Estimated Annual Fuel Consumption _____ (gal)

Estimated Total Vehicle Miles Traveled 12,925 VMT/yr Ave. Wgt. 6.38 tons

Seasonal Usage (%)	Paved Areas	Unpaved Areas
December, January, and February	20	5
March, April, and May	20	5
June, July, and August	20	5
September, October, and November	20	5
Annual Storage Losses (tons)		

Heavy-Duty Diesel Vehicles (HDDV) Estimated Annual Fuel Consumption _____ (gal)

Estimated Total Vehicle Miles Traveled 25,850 VMT/yr Ave. Wgt. 28.25 tons

Seasonal Usage (%)	Paved Areas	Unpaved Areas
December, January, and February	20	5
March, April, and May	20	5
June, July, and August	20	5
September, October, and November	20	5
Annual Storage Losses (tons)		

Road Dust Emissions

	TSP	PM10
Uncontrolled Emissions	28.94 tpy	6.23 tpy
Control Efficiency	N/A	N/A
Controlled (Actual) Emissions	N/A	N/A

Dust Control Measures (Describe): Sweeping with a skid steer broom implement. Watering with a tank truck.

Transfer this information to the summary emissions sheets.

PERMIT APPLICATION FORM G
MISCELLANEOUS FUGITIVE EMISSIONS

This form is for reporting miscellaneous fugitive emissions which are not reported in forms A-F. Fugitives are emissions which escape into the plant air or outdoor air by means other than a flue or duct. Fugitives associated with a particular process should be reported on the form for that process. For example, fugitives from a paper coating line would be reported for that line. Fugitives from several segments may be grouped together. Fugitives not associated with any one process should be reported here as "Plant Fugitives." Examples are dust (TSP) and fine particulates (PM_{10}) from abrasive blasting or construction/demolition, VOC and/or air toxics from cleanup, painting or maintenance, or chemicals from laboratory experiments or hoods. A separate form G should be completed for each type or category of activity. Additional forms may be attached if there are more than four (4) pollutants for the activity.

Process Description or Miscellaneous Activity (describe):

Give a verbal description of the activity reported, such as construction projects, abrasive blasting, painting, cleaning, or other activity that has no relation to regular plant processes. State the type of abrasives, cleaners, or paints used, and other information that would be helpful in estimating dust or evaporative emissions.

GASES AND LIQUIDS

Common Name:	ZEP Dyna 143			
Chemical Name:	Distillates (petroleum), hydrotreated light			
CAS #:	64742-47-8			
Use:	Parts Washer Solvent			
Quantity Purchased (units):				
Annually:	35 gal/yr			
Daily:				
Seasonal Use: (%)				
December, January, and February:	25			
March, April, and May:	25			
June, July, and August:	25			
September, October, and November:	25			
Volatiles Wgt % or lb./gal. OR	6.59 lb/gal			
Total Volatiles				
Amt Volatiles Recovered and Shipped Off Site				
Amount Emitted	0.12 tpy			

PARTICULATE EMISSIONS

	TSP	PM10
Estimated amount of particulates generated per unit of activity	Torch Cutting: 0.06 lb/hr cutting time	
Estimated total amount of particulates		
Seasonal Distribution (%)		
December, January, and February:	25	
March, April, and May:	25	
June, July, and August:	25	
September, October, and November:	25	

Controls (describe): Torch cutting occurs indoors. Assume 90% of PM emissions is emitted to atmosphere and 10% of PM emissions settle inside building.

Efficiency (%)	N/A	
Net Emissions	0.24 tpy	

Allegheny County Health Department
Air Quality Program

PERMIT APPLICATION FORM K

SUMMARY OF EMISSIONS

Name of Owner/Operator Metalico Pittsburgh, Inc. Plant Name Metalico Pittsburgh, Inc.

Pollutant _____ CAS No. _____ Year for actual emissions _____ or _____ estimated

POINT	UNITS DISCHARGING TO THIS STACK	EMISSION SOURCE DESCRIPTION	ANNUAL THROUGHOUT UNITS	ALLOWABLE UNITS	POTENTIAL	ACTUAL
Please refer to the Emission Calculations in Appendix C.						
TOTAL EMISSIONS FOR THIS SOURCE (FACILITY)						

If this is a NON-CRITERIA POLLUTANT, include the CAS number. For the fields "Point" and "Units discharging to this stack," use the identifying numbers from your plant drawing. For a more complete explanation of emissions, see definitions in Article XXI.

Allowable emissions are the maximum allowable by regulation. Calculate using the capacity of the unit unless restricted by operation limits, and the most strict regulation pertaining to that unit. Calculate for the shortest term regulated (one hour, one day….). Reflect the time period when defining the units.

Potential to emit (Potential on the chart) is the maximum capacity to emit contaminants, including fugitive emissions, under the physical and operational design of the unit. Include any permitted or regulated restrictions to operate. The Potential to Emit values should be less than or equal to the Allowable emissions.

Actual emissions are the best estimate of the latest year of emissions from each unit. For those that are new, actual emissions would be an estimate of a normal annual operation. Please note that sources will be required to submit an annual emissions report and may be required to pay an annual emissions fee. This report and fee payment will be made under a separate document.

Copy this page to report additional pollutants

PERMIT APPLICATION FORM M
SOURCE OUT OF COMPLIANCE
Not Applicable

FORM M Sources Out of Compliance

There is no Form M included in this application form. Strategies for bringing non-complying sources into compliance will vary so widely from source to source that it would not be useful to provide a form for completion. Provide your own description and label it Form M. Include enough detail that it is clear what emission units are not in compliance and of what regulations they are not in compliance. Provide a detailed schedule of compliance. This would include an installation schedule, changes in operations, a leak detection program schedule -- whatever it will require to bring the emission unit into compliance. Make sure that the dates are manageable; they may be included in the permit, and become enforceable. Regular reports on the progress of reaching compliance are required every six months (they may be more frequent if desired).

PERMIT APPLICATION FORM N
ALTERNATIVE OPERATING SCENARIO
Not Applicable

A: GENERAL INFORMATION

1. Alternative Scenario Number (Plan #): _____
2. Give a general description of the changes involved in this alternative scenario:

3. Please Identify the emissions units affected in the Table below:

Emission Unit #	Type of Emission Unit	Changes in the Process / Changes in the Project / Other Changes	SIC/SCC Associated with Scenario

4. Describe and cite all applicable requirements pertaining to this alternative scenario:

B: COMPLIANCE METHOD

Emission Unit #	Pollutant	Compliance Method	Reference Test Method	Monitoring Device	Frequency / Duration of Sampling

Attach any other related information which would further explain the method of compliance.

C: RECORDKEEPING AND REPORTING

1. List what parameter will be recorded and the frequency of recording:

2. Describe what is to be reported and the frequency of reporting? (Reports must be submitted at least every six (6) months

3. Beginning reporting date: __ /__ /__

APPENDIX B
Compliance Review Form

2700-PM-AQ0004 Rev. 6/2006

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

AIR POLLUTION CONTROL ACT COMPLIANCE REVIEW FORM

Fully and accurately provide the following information, as specified. Attach additional sheets as necessary.

Type of Compliance Review Form Submittal (check all that apply)

☐ Original Filing
☒ Amended Filing

Date of Last Compliance Review Form Filing: 01/11/2021

Type of Submittal

☐ New Plan Approval
☐ Extension of Plan Approval
☐ Other:
☒ New Operating Permit
☐ Change of Ownership
☐ Renewal of Operating Permit
☐ Periodic Submission (@ 6 mos)

SECTION A. GENERAL APPLICATION INFORMATION

Name of Applicant/Permittee/("applicant")
(non-corporations-attach documentation of legal name)
Metalico Pittsburgh, Inc.

Address 3100 Grand Avenue
Pittsburgh, PA 15225

Telephone 412-771-7000 **Taxpayer ID#** 26-2452344

Permit, Plan Approval or Application ID#

Identify the form of management under which the applicant conducts its business (check appropriate box)

☐ Individual
☐ Municipality
☐ Proprietorship
☐ Public Corporation
☒ Private Corporation
☐ Syndicate
☐ Municipal Authority
☐ Fictitious Name
☐ Partnership
☐ Limited Partnership
☐ Government Agency
☐ Joint Venture
☐ Association
☐ Other Type of Business, specify below:

Describe below the type(s) of business activities performed.

Facility performs scrap metal recycling by mechanical preparation including baling, shearing, breaking, and shredding. The processed scrap is sorted into ferrous metal, non-ferrous metal, and non-metallic for recycling or disposal at other facilities.

SECTION B. GENERAL INFORMATION REGARDING "APPLICANT"

If applicant is a corporation or a division or other unit of a corporation, provide the names, principal places of business, state of incorporation, and taxpayer ID numbers of all domestic and foreign parent corporations (including the ultimate parent corporation), and all domestic and foreign subsidiary corporations of the ultimate parent corporation with operations in Pennsylvania. Please include all corporate divisions or units, (whether incorporated or unincorporated) and privately held corporations. (A diagram of corporate relationships may be provided to illustrate corporate relationships.) Attach additional sheets as necessary.

Unit Name	Principal Places of Business	State of Incorporation	Taxpayer ID	Relationship to Applicant
Metalico Pittsburgh, Inc.	3100 Grand Ave., Pittsburgh	PA	26-2452344	Applicant
Metalico, Inc.	135 Dermody St., Cranford	NJ	26-2452344	Parent
Metalico Pittsburgh, Inc. dba Metalico Brownsville	Albany Rd., Brownsville	PA	26-2452344	Related Party
Metalico Bradford, Inc.	288 High St., Bradford	PA	25-14651106	Related Party
Metalico Bradford, Inc. dba Metalico North East	10224 W. Main St., Northeast	PA	25-14651106	Related Party
Metalico Youngstown, Inc. dba Metalico Shenango Valley	329 S. Dock St., Sharon	PA	27-1372839	Related Party

SECTION C. SPECIFIC INFORMATION REGARDING APPLICANT AND ITS "RELATED PARTIES"

Pennsylvania Facilities. List the name and location (mailing address, municipality, county), telephone number, and relationship to applicant (parent, subsidiary or general partner) of applicant and all Related Parties' places of business, and facilities in Pennsylvania. Attach additional sheets as necessary.

Unit Name	Street Address	County and Municipality	Telephone No.	Relationship to Applicant
Metalico Pittsburgh, Inc. dba Metalico Brownsville	Albany Rd., Brownsville, PA	Fayette County	724-785-6000	Related Party
Metalico Bradford, Inc.	288 High St., Bradford, PA	McKean County	814-362-6873	Related Party
Metalico Bradford, Inc. dba Metalico North East	10224 W. Main St., Northeast, PA	Erie County	814-725-1253	Related Party
Metalico Youngstown, Inc. dba Metalico Shenango Valley	329 S. Dock St., Sharon, PA	Mercer County	724-342-1030	Related Party

Provide the names and business addresses of all general partners of the applicant and parent and subsidiary corporations, if any.

Name	Business Address

List the names and business address of persons with overall management responsibility for the process being permitted (i.e. plant manager).

Name	Business Address
Glenda Wehrli	3100 Grand Avenue, Pittsburgh, PA, 15225

Plan Approvals or Operating Permits. List all plan approvals or operating permits issued by the Department or an approved local air pollution control agency under the APCA to the applicant or related parties that are currently in effect or have been in effect at any time 5 years prior to the date on which this form is notarized. This list shall include the plan approval and operating permit numbers, locations, issuance and expiration dates. Attach additional sheets as necessary.

Air Contamination Source	Plan Approval/ Operating Permit#	Location	Issuance Date	Expiration Date
Minor Source	ACHD Permit 0692	Allegheny County	8/21/2007	8/20/2012

Compliance Background. (Note: Copies of specific documents, if applicable, must be made available to the Department upon its request.) List all documented conduct of violations or enforcement actions identified by the Department pursuant to the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. Attach additional sheets as necessary. See the definition of "documented conduct" for further clarification. Unless specifically directed by the Department, deviations which have been previously reported to the Department in writing, relating to monitoring and reporting, need not be reported.

Date	Location	Plan Approval/ Operating Permit#	Nature of Documented Conduct	Type of Department Action	Status: Litigation Existing/Continuing or Corrected/Date	Dollar Amount Penalty
1/19/2023	3100 Grand Avenue, Pittsburgh, PA, 15225	0692	Administrative Compliance Order of Consent, U.S. EPA Docket No. CAA-03-2023-0016DA issued by USEPA on December 9, 2022 and signed on January 19, 2023.	Administrative Compliance Order of Consent	Pending with updated permit application	$--
10/4/2021	3100 Grand Avenue, Pittsburgh, PA, 15225	0692	Current Minor Source Permit did not include an enforceable limitation on shredder's allowable annual hours of operation.	Notice of Violation and Opportunity to Confer Administrative Compliance Order of Consent	Pending with updated permit application	$--
12/10/2018, 4/4/2019 & 5/17/2019	3100 Grand Avenue, Pittsburgh, PA, 15225	0692	Visible Emissions	Violation w/ Fine	7/19/19 – Enforcement Order (see attached)	$12,750
11/15/2018	3100 Grand Avenue, Pittsburgh, PA, 15225	0692	Restriction, Monitoring Requirement, Recordkeeping Requirement	Violation w/ Fine	11/15/2018	$6,900
12/11/2017	3100 Grand Avenue, Pittsburgh, PA, 15225	0692	Open Burning	Violation w/ Fine	12/11/2017	$2,600
2/22/2016	3100 Grand Avenue, Pittsburgh, PA, 15225	0692	Waste Oil Unit – not permitted	Violation w/ Fine	3/14/2016	$800

List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of "deviations" for further clarification.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Litigation Existing/Continuing Or Corrected/Date
Please see attached.				

CONTINUING OBLIGATION. Applicant is under a continuing obligation to update this form using the Compliance Review Supplemental Form if any additional deviations occur between the date of submission and Department action on the application.

VERIFICATION STATEMENT
Subject to the penalties of Title 18 Pa.C.S. Section 4904 and 35 P.S. Section 4009(b)(2), I verify under penalty of law that I am authorized to make this verification on behalf of the Applicant/Permittee. I further verify that the information contained in this Compliance Review Form is true and complete to the best of my belief formed after reasonable inquiry. I further verify that reasonable procedures are in place to ensure that "documented conduct" and "deviations" as defined in 25 Pa Code Section 121.1 are identified and included in the information set forth in this Compliance Review Form.
Signature / Date
Glenda Wehrli
Name (Print or Type)
Director of Environmental Compliance & Employee Safety
Title

Metalico Pittsburgh Shredder Notification Log

Date Reported	Time Reported	Incident Reported By	Incident Reported To	Statement of Incident
2/7/2022	11:30 AM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 11:20AM; we are still investigating. There is no additional information to provide at this time. SRI # 202200001
2/15/2022	8:46 AM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 8:41AM; we are still investigating. There is no additional information to provide at this time. SRI # 202200003
2/28/2022	9:55 AM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 9:53AM; we are still investigating. There is no additional information to provide at this time. SRI # 202200005
3/1/2022	9:46 AM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 9:35AM. At this time we believe it came from loose material. We are still investigating; no additional information to provide at this time. SRI # 202200004
3/4/2022	8:36 AM	Glenda Wehrli	ACHD	Metalico Pittsburgh had failure with the Smart Water System this morning. At approximately 7:35am we started running the unit, within 5 minutes our Operations Manager noticed there was an issue and shut down the unit immediately. The Operations Manger reset the system and start the shredder back-up for another 5 minutes and notice the water system was still not working properly. I called the County but the answer service picked-up. I will send a Breakdown Report detailing the event once I receive the report number from the County.
4/1/2022	12:42 PM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 12:35PM. At this time, we do not believe it came from a vehicle. We are still investigating; no additional information to provide at this time. SRI # 202200007
4/4/2022	2:03PM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 2:00PM. We are investigating the cause at this time. SRI # 202200008
4/11/2022	10:38 AM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 10:20AM. The team is investigating the cause at this time. SRI # 202200009
4/19/2022	2:45 PM	Kyle Michlovic	ACHD	Metalico Pittsburgh had an incident at approximately 2:26 pm, we are still investigating. There is no additional information to provide at this time. SRI # 202200010
5/25/2022	6:07PM	Glenda Wehrli	ACHD	Metalico Pittsburgh had a small fire this afternoon at approximately 2:54pm. A supplier was being unload, when the operator pulled material from the supplier and it was smoking. The team immediately put water on the material/pile. Additional piles were wetted as a precaution. We stopped applying water at the site at approximately 3:06pm. The second shift is performing fire watch. I called the ACHD at 3:02pm to report the fire. I left a voicemail on an answering machine affiliated with the phone number (412) 578-8115. I have not heard back from the County so I am sending this email to ensure the proper individuals receive the information in a timely manner. It was a small fire put out within minutes. This is not a breakdown. No equipment was involved. No vehicles were involved. The material that caught fire was loose sheet. The fire was located at the "infeed" area of the shredder. Feel free to call my cell phone if you have any questions. I will not be in the office until Tuesday of next week. However, Lauren Pawlak will be available if the County should visit the site. SRN # 202200013
7/27/2022	8:03AM	Kyle Michlovic	ACHD	At approximately 7:52am on 7/27/2022 Pittsburgh had an incident. It is believed that it came out of our loose pile, the team is still investigating. SRI # 202200014
8/12/2022	1:15PM	Glenda Wehrli	ACHD	Metalico Pittsburgh has an incident at the shredder today around 1:15PM. There was no noise. We are currently investigating. SRI# 202200015

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Metalico Pittsburgh Shredder Notification Log

9/8/2022	11:10AM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 11:10 a.m., we are still investigating. There is no additional information to provide at this time. SRI# 202200016
9/12/2022	1:30PM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 1:30PM today. The material is believed to be from the loose pile. We are still investigating. SRI# 202200017
9/20/2022	7:49AM	Kyle Michlovic	ACHD	Metalico Pittsburgh had an Incident at approximately 7:35 am today. There is no additional information at this time. SRI# 202200019
10/10/2022	8:56 AM	Glenda Wehrli	ACHD	Metalico Pittsburgh had an incident at approximately 8:48AM. We are investigating. There is no additional information to provide at this time. SRI# 202200020

APPENDIX C
Emission Calculations

Metalico Pittsburgh, Inc.
Potential To Emit Calculations

Facility Name:	Metalico / Neville Island
County:	Allegheny
Municipality:	Neville Township
SIC:	5093 - Scrap and Waste Materials
NAICS:	423930 - Recyclable Material Merchant Wholesalers
Location Address:	3100 Grand Avenue Pittsburgh, PA 15225-1502
Latitude:	40 deg, 25 min, 15.63 sec N
Longitude:	-79 deg, 55 min, 18.78 sec W
UTM Zone:	17
UTM North:	4474.833
UTM East:	591.463

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Facility -Wide Potential To Emit Emissions Summary

Emissions Summary

Parameter	Emissions Source (TPY)						Total Emissions (TPY) [1]
	C001: Clean Burn Unit	P001: Scrap Metal Processor	Storage Tanks	Road Dust [2]	Fugitive Emissions: Torch Cutting	Fugitive Emissions: Parts Washer	
SO2	1.55						1.55
NOX	0.23						0.23
CO	0.03						0.03
PM	0.83	13.06		28.94	0.24		43.07
PM10	0.72	13.06		6.23	0.24		20.24
PM2.5	0.72	13.06		1.35	0.24		15.36
VOC	0.01	46.80	0.01			0.12	46.94
Organic HAPS		1.33					1.33

[1] Total Emissions is the sum of the pollutant from all emission sources; [C001 Pollutant (TPY)] + [P001 Pollutant (TPY) + [Storage Tanks (TPY)] + [Road Dust (TPY)] + [Fugitive Emissions (TPY)]

[2] PM emissions from road dust is assumed to total suspended particulate matter (TSP) from paved and unpaved roads.

Metalico Pittsburgh, Inc.
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Clean Burn Unit / Air Atomizing Multi-Oil Burner

Operating Parameters

Subfacility ID:	C001	
Description:	Clean Burn Unit / Air Atomizing Multi-Oil Burner	
Hours of Operation	8,760	hrs/yr [1]
Burner Heat Input Rate:	500,000	BTU/hr [1]
Fuel Type	Waste Oil	
Fuel Usage	0.0033	TGB/hr [2]
	28.91	TGB/yr [2]

Fuel Test Data

Ash	0.87	% [3]
Sulfur Content	1	% [4]
Heat Value	140,000	BTU/gal [4]

Emissions Calculations

Pollutant	Emission Factor		Potential Emissions [5] lb/hr	Potential Emissions [5] TPY
SO2 [6]	107	lb/TGB	0.35	1.55
NOX [6]	16	lb/TGB	0.05	0.23
CO [6]	2.1	lb/TGB	0.01	0.03
PM [6]	57.42	lb/TGB	0.19	0.83
PM10 [6]	49.59	lb/TGB	0.16	0.72
PM2.5 [6]	49.59	lb/TGB	0.16	0.72
PM (Condensable) [7]	7.83	lb/TGB	0.03	0.11
VOC [6]	1	lb/TGB	0.00	0.01
CO2 [6]	22,000	lb/TGB	72.60	317.99

[1] Hours provided by facility personnel. Burner rating manufacturer specifications (September 2013).

[2] Annual Fuel Usage (TGB/yr) = [Hourly Fuel Usage (TGB/hr)] x [Annual Hours of Operation (hrs/yr)]. Based on spec sheet (Clean Burn CB-5000) maximum oil consumption is 3.3 GPH.

[3] Based on analytical report prepared by Alpha Analytical. Sample collected on 1/26/2022. Report dated 11/10/2022.

[4] Due to limited data available, assumed sulfur content and heating value based on AP-42, Appendix A.

[5] Hourly Emissions (lb/hr) = [Emission Factor (lb/TGB)] x [Fuel Consumption (TGB/hr)]; Annual Emissions (TPY) = [Hourly Emissions (lb/hr)] x [Hours of Operation (hr/yr)] x [1 ton/2000 lbs]

[6] Emission Factor is based on AP-42, Tables 1.11-1, 1.11-2, and 1.11-3. For VOC = TOC.

[7] PM (Condensable) is the different between PM and PM10 (19.80 - 17.10 = 2.70 lb/TGB).

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Scrap Metal Processor

Subfacility ID:	P001	
Description:	Scrap Metal Processor	
Hours of Operation	2,000	hrs/yr [1]
Process Rate	120	TPH [2]
	240,000	TPY [2]

Identification of Emission Points:

EP No.	EP Description
01	Truck Unloading
02	Transfer to Infeed Conveyor
03	Shredder: Feed into Shredder
04	Shredder
05	Shredder to First Transfer Conveyor
06	First Transfer Conveyor to Pile
07	First Transfer Conveyor to Magnet Separation System
08	Magnet Separation System to Second Transfer Conveyor
09	Second Transfer Conveyor to Cyclone Z-Box
010	Cyclone Z-Box to Sorting Conveyors
011	Cyclone
012	Sorting Conveyors to Shuttle Conveyor
013	Shuttle Conveyor to Stacker
013	Stacker to Ferrous Finished Goods Inventory (Pile)
014	Ferrous Finished Goods Inventory to Rail
015	Ferrous Finished Goods Inventory to Truck
016	Ferrous Finished Goods Inventory to Barge
017	Magnet Separation System to Nonferrous Conveyor
018	Non Ferrous Conveyor to Batch Feeder
019	Batch Feeder to Trommel Feed Conveyor
020	Trommel Feed Conveyor to Trommel
021	Trommel to Oversize Non-Ferrous Bin
022	Trommel to Undersized Material Conveyor
023	Undersized Material Conveyor to Bivi-Tec Screen
024	Bivi-Tec Screen to small fraction Steiner ECS
025	Small Fraction Steinert ECS to Stainless Transfer Conveyor
026	Stainless Transfer Conveyor to ISS
027	ISS to Stainless Product Bin
028	ISS to Non-Metallic Bin
029	Small Fraction Steinert ECS to First Non-Ferrous Product Conveyor
030	Trommel to Medium Sized Material Conveyor
031	Medium Size Material Conveyor to Middle Fraction Steinert ECS
032	Middle Fraction Steinert ECS to Stainless Transfer Conveyor
033	Middle Fraction Steinert ECS to First Non-Ferrous Product Conveyor
034	First Non-Ferrous Product Conveyor to Second Non-ferrous Product Conveyor
035	Second Non-Ferrous Product Conveyor to Non-Ferrous Finished Goods Inventory
036	Cyclone to Non-Ferrous Conveyor

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Scrap Metal Processor Potential To Emit (PTE) Calculations

Emission Calculations

Pollutant	Emission Factor	Process Rate		Emissions	
		TPH	TPY	(lb/hr)	(TPY)
PM [3]	--- ---	---	---	13.06	13.06
Mixed Feed Transfer Points (5 Transfers) [4]	0.00257 lb/ton	120	240,000	1.54	1.54
Ferrous Transfer Points (10 Transfers) [5]	0.00257 lb/ton	90	180,000	2.31	2.31
Non-Ferrous Transfer Points (20 Transfers) [6]	0.00257 lb/ton	30	60,000	1.54	1.54
Shredder w/ Water Injection Control [7]	0.0472 lb/ton	120	240,000	5.66	5.66
Z-Box [8]	2 lb/hr	90	180,000	2.00	2.00
VOC [9]	0.39 lb/ton	120	240,000	46.80	46.80
Organic HAPS [10]	0.0111 lb/ton	120	240,000	1.33	1.33

[1] Based on the Administrative Compliance Order of Consent issued by USEPA on December 9, 2022 and signed on January 19, 2023.

[2] Hourly and annual throughputs based on the Administrative Compliance Order of Consent issued by USEPA on December 9, 2022 and signed on January 19, 2023.

[3] PM Emissions = [Mixed Feed Transfer Points PM] + [Ferrous Transfer Points PM] + [Non-Ferrous Transfer Point PM] + [Shredder PM] + [Z-Box PM]

[4] Hourly Mixed Feed Transfer Point PM (lb/hr) = [Transfer Point Emission Factor (lb/ton)] x [5 transfer points] x [Mixed Feed Throughput (ton/hr)]; Annual Mixed Feed Transfer Point PM (TPY) = [Transfer Point Emission Factor (lb/ton)] x [5 transfer points] x [Mixed Feed Throughput (tons/yr)] x [1 ton/2000 lbs]. Emission Factor based on Table D-10F in Institute of Scrap Recycling Industries, Inc. Title V Applicability Workbook. Washington DC: Institute of Scrap Recycling Industries, 1998.

[5] Hourly Ferrous Feed Transfer Point PM (lb/hr) = [Transfer Point Emission Factor (lb/ton)] x [10 transfer points] x [Ferrous Feed Throughput (tons/hour)]; Annual Ferrous Feed Transfer Point PM (TPY) = [Transfer Point Emission Factor (lb/ton)] x [10 transfer points] x [Ferrous Feed Throughput (tons/yr)] x [1 ton/2000 lbs]. Emission Factor based on Table D-10F in Institute of Scrap Recycling Industries, Inc. Title V Applicability Workbook. Washington DC: Institute of Scrap Recycling Industries, 1998. Assumes 75% of the mixed feed rate is ferrous material.

[6] Hourly Non-Ferrous Feed Transfer Point PM (lb/hr) = [Transfer Point Emission Factor (lb/ton)] x [20 transfer points] x [Non-Ferrous Feed Throughput (tons/hr)]; Annual Non-Ferrous Feed Transfer Point PM (TPY) = [Transfer Point Emission Factor (lb/ton)] x [20 transfer points] x [Non-Ferrous Feed Throughput (tons/yr)] x [1 ton/2000 lbs]. Emission Factor based on Table D-10F in Institute of Scrap Recycling Industries, Inc. Title V Applicability Workbook. Washington DC: Institute of Scrap Recycling Industries, 1998. Assumes 25% of the mixed feed rate is non-ferrous material.

[7] Hourly Shredder w/ Water Injection Control PM (lb/hr) = [Shredder Emission Factor (lb/ton)] x [Mixed Feed Throughput (tons/yr)]; Annual Shredder w/ Water Injection Control PM (TPY) = [Shredder Emission Factor (lb/ton)] x [Mixed Feed Throughput (tons/yr)] x [1 ton/2000 lbs]. Emission Factor based on testing conducted on a similar source (General Iron Test Report, 2018).

[8] Z-Box PM (TPY) = [Z-Box Emission Factor (lb/hr)] x [Hours of Operation (hrs/yr)] x [1 ton/2000 lbs]. Emission Factor based on information provided by facility personnel.

[9] Hourly VOC Emissions (TPY) = [VOC Emission Factor (lb/ton)] x [Mixed Feed Throughput (tons/hr)]. Annual VOC Emissions (TPY) = [VOC Emission Factor (lb/ton)] x [Mixed Feed Throughput (tons/yr)] x [1 ton/2000 lbs]. Emission Factor is on a propane basis and is based on the Administrative Compliance Order of Consent Signed issued by USEPA on December 9, 2022.

[10] Hourly Organic HAP Emissions (lb/hr) = [Organic HAP Emission Factor (lb/ton)] x [Mixed Feed Throughput (tons/hr)] x [1 ton/2000 lbs]. Annual Organic HAP Emissions (TPY) = [Organic HAP Emission Factor (lb/ton)] x [Mixed Feed Throughput (tons/yr)] x [1 ton/2000 lbs]. Organic HAPs emission factor is based on 2.85% of VOCs, in the similar source test from ISRI Title V Workbook, Table D-11.F applied to the VOC EF above.

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Routine Losses From Fixed Roof Tanks (AP 42, Ch.7, 7.1.3.1)

VOC Emissions Summary

Fuel Type	Throughput		VOC Emissions
	gal/yr	gal/day [1]	(TPY)
On-Road Diesel	73,000	200	4.32E-03
Off-Road Diesel	113,200	310	2.77E-03
Used Oil	20,400	56	1.09E-04
Cumulative	206,600	566	0.01

Storage Tank Calculations

Local atmospheric properties[1]

Average daily maximum ambient temperature, TAX (°R)	520.1
Average daily minimum ambient temperature, TAN (°R)	502.5
Average daily total insolation on a horizontal surface, I (Btu/(ft^2/day))	1,170

[1] From AP 42 Table 7.1-7 for Pittsburgh, PA, assume storage tank usage rate consistent across calendar year

Storage tank properties

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6
Contents	On-road diesel	Off-road diesel	Off-road diesel	Used oil	Off-road diesel	On-road diesel
Location	Metals	Metals	Metals	Shredder	Shredder	Shredder
Orientation	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Capacity (gal)	1,000	3,000	3,000	3,000	10,000	10,000
Shell diameter, D (ft)	4.00	5.33	5.33	5.50	10.00	10.00
Shell length or height, H (ft)	10.67	18.17	18.17	12.00	17.00	17.00
Shell color/shade	Gray/Medium	Red	Yellow (Beige)	Yellow (Beige)	White	White
Tank surface solar absorptance, α (dimensionless) [1]	0.71	0.9	0.42	0.42	0.25	0.25
Vapor molecular weight, MV (lb/lb-mole) [2]	130	130	130	130	130	130
Vapor pressure (mmHg) [3]	1	0.4	0.4	0.1	0.4	1
Vapor pressure, PVA (psia) [4]	0.019	0.008	0.008	0.002	0.008	0.019
Annual net throughput (gal/yr) [5]	3,000	22,800	20,400	20,400	70,000	70,000
Annual net throughput, Q (bbl/yr) [6]	71.43	542.86	485.71	485.71	1666.67	1666.67

[1] From AP 42, Table 7.1-6, based on paint color, assume average paint condition and same color for whole tank.

[2] From AP 42, Table 7.1-2, using values of No. 2 Fuel Oil for Diesel and No. 6 Fuel Oil for Used Oil.

[3] From SDS

[4] Conversion: 1 psia = 51.715 mmHg

[5] Estimated from pump utilization records.

[6] Conversion: bbl/yr = (gal/yr) / (42 gal/bbl)

Routine losses for horizontal storage tanks (VOC's)

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6
Standing loss, LS (lb/yr)	0.57	0.80	0.54	0.09	1.45	3.62
Vapor space expansion factor, KE (day^-1) [1]	0.05	0.06	0.04	0.04	0.03	0.03
Effective diameter, DE (ft)	7.37	11.11	11.11	9.17	14.71	14.71
Effective height, HE (ft)	3.14	4.19	4.19	4.32	7.85	7.85
Vented vapor saturation factor, KS (dimensionless)	1.00	1.00	1.00	1.00	1.00	1.00
Vapor space outage, HVO (ft)	1.57	2.09	2.09	2.16	3.93	3.93
Stock vapor density, WV (lb/ft3)	4.51E-04	1.80E-04	1.82E-04	4.54E-05	1.82E-04	4.56E-04
Average vapor temperature, TV (°R) [2]	519.52	521.72	516.16	516.16	514.20	514.20
Average daily ambient temperature, TAA (°R)	511.30	511.30	511.30	511.30	511.30	511.30
Liquid bulk temperature, TB (°R) [3]	513.79	514.46	512.77	512.77	512.18	512.18
Working loss, LW (lb/yr)	0.18	0.55	0.50	0.12	1.71	4.26
Working loss turnover factor, KN (dimensionless)	1.00	1.00	1.00	1.00	1.00	1.00
Working loss product factor, KP (dimensionless)	1.00	1.00	1.00	1.00	1.00	1.00
Vent setting correction factor, KB (dimensionless)	1.00	1.00	1.00	1.00	1.00	1.00
Number of turnovers per year, N (dimensionless)	2.99	7.51	6.72	9.56	7.01	7.01
Annual sum of increases in liquid level, ΣHQI (ft/yr) [4]	9.40	31.45	28.14	41.32	55.04	55.04
Net working loss throughput, VQ (ft3/yr)	401.00	3,047.60	2,726.80	2,726.80	9,356.67	9,356.67
Total routine losses, LT (lb/yr)	0.75	1.35	1.03	0.22	3.15	7.88
Total routine losses, LT (TPY)	**3.77E-04**	**6.73E-04**	**5.15E-04**	**1.09E-04**	**1.58E-03**	**3.94E-03**
Cumulative routine losses, LT (TPY)	**0.01**					

[1] If the liquid stored in the fixed roof tank has a true vapor pressure less than 0.1 psia and the tank breather vent settings are not greater than ±0.03 psig, Equation 1-12 or Equation 1-13 may be used with an acceptable loss in accuracy. If the tank location and tank color and condition are known, KE may be calculated using equation 1-12 in lieu of Equation 1-5.

[2] API assigns a default value of H/D = 0.5 and an assumption of αR = αS, resulting in the simplified equation for an uninsulated tank (Equation 1-33).

[3] For uninsulated fixed roof tanks known to be in approximate equilibrium with ambient air, heat gain to the bulk liquid from insolation is almost entirely through the tank shell; thus the liquid bulk temperature is not sensitive to HS/D and may be calculated using Equation 1-31.

[4] If ΣHQI is unknown, ΣHQI can be estimated from pump utilization records.

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Summary of equations from AP 42, Chapter 7

Total routine losses, LT

LT=LS+LW [Eq. 1-1]
LT = total routine losses, lb/yr
LS = standing losses, lb/yr, see Equation 1-2
LW = working losses, lb/yr, see Equation 1-35

Standing loss, LS

LS=365*KE*((PI/4)*D^2)*HVO*KS*WV [Eq. 1-4]
LS = standing loss, lb/yr
KE = vapor space expansion factor, per day, see Equation 1-5, 1-12, or 1-13
D = diameter, ft, use DE from Equation 1-14 for horizontal tanks
HVO = vapor space outage, ft, see Equation 1-16; use HE/2 from Equation 1-15 for horizontal tanks
KS = vented vapor saturation factor, dimensionless, see Equation 1-21
WV = stock vapor density, lb/ft3, see Equation 1-22
365 = constant, the number of daily events in a year, (days/year)

Vapor space expansion factor, KE

KE=0.0018*ΔTV=0.0018*(0.7*(TAX-TAN)+0.02*α*I) [Eq 1-12]
KE = vapor space expansion factor, per day
ΔTV = average daily vapor temperature range, °R
TAX = average daily maximum ambient temperature, °R
TAN = average daily minimum ambient temperature, °R
α = tank surface solar absorptance, dimensionless
I = average daily total insolation on a horizontal surface, Btu/(ft2/day)
0.0018 = constant, (°R)^-1
0.7 = constant, dimensionless
0.02 = constant, (°R ft2/day)/Btu

Effective diameter, DE (for horizontal tanks)

DE=sqrt((L*D)/(PI/4)) [Eq 1-14]
DE = effective tank diameter, ft
L = length of the horizontal tank, ft (for tanks with rounded ends, use the overall length)
D = diameter of a vertical cross-section of the horizontal tank, ft

Effective height, HE (for horizontal tanks)

HE=(PI/4)*D [Eq 1-15]
HE = effective height of an equivalent upright cylinder (for horizontal cylinders)

Vented vapor saturation factor, KS

KS=1/(1+0.053*PVA*HVO) [Eq 1-21]
KS = vented vapor saturation factor, dimensionless
PVA = vapor pressure at average daily liquid surface temperature, psia; see Notes 1 and 2 to Equation 1-22
HVO = vapor space outage, ft, see Equation 1-16; use HE/2 from Equation 1-15 for horizontal tanks
0.053 = constant, (psia-ft)^-1

Vapor space outage, HVO

HVO=HS-HL+HRO [Eq 1-16]
HVO = vapor space outage, ft; use HE/2 from Equation 1-15 for horizontal tanks
HS = tank shell height, ft
HL = liquid height, ft
HRO = roof outage, ft

Stock vapor density, WV

WV=(MV*PVA)/(R*TV) [Eq 1-22]
WV = vapor density, lb/ft3
MV = vapor molecular weight, lb/lb-mole; see Note 1
R = the ideal gas constant, 10.731 psia ft3/lb-mole °R
PVA = vapor pressure at average daily liquid surface temperature, psia; see Notes 1 and 2 to Equation 1-22
TV = average vapor temperature, °R; see Note 6

Average vapor temperature, TV

TV=0.7*TAA+0.3*TB+0.009*α*I [Eq 1-33]
TV = average vapor temperature, °R
TAA = average daily ambient temperature, °R
TB = liquid bulk temperature, °R
α = average tank surface solar absorptance, dimensionless
I = average daily total insolation factor, Btu/(ft2/day)

Average daily ambient temperature, TAA

TAA=(TAX+TAN)/2 [Eq 1-30]
TAA = average daily ambient temperature, °R
TAX = average daily maximum ambient temperature, °R
TAN = average daily minimum ambient temperature, °R

Liquid bulk temperature, TB

TB=TAA+0.003*αS*I [Eq 1-31]
TB = liquid bulk temperature, °R
TAA = average daily ambient temperature, °R, as calculated in Equation 1-30
αS = tank shell surface solar absorptance, dimensionless; see Table 7.1-6
I = average daily total insolation factor, Btu/(ft2/day); see Table 7.1-7

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Working loss, LW
LW=VQ*KN*KP*WV*KB [Eq 1-35]
LW = working loss, lb/yr
VQ = net working loss throughput, ft3/yr, see Note 1 of Equation 1-35
KN = working loss turnover (saturation) factor, dimensionless
for turnovers > 36, KN = (180 + N)/6N
for turnovers ≤ 36, KN = 1
N = number of turnovers per year, dimensionless
KP = working loss product factor, dimensionless, for crude oils, KP = 0.75, for all other organic liquids, KP = 1
WV = vapor density, lb/ft3, see Equation 1-22
KB = vent setting correction factor, dimensionless, for open vents and for a vent setting range up to ± 0.03 psig, KB = 1

Number of turnovers per year, N
N=ΣHQI/(HLX-HLN) [Eq 1-36]
N = number of turnovers per year, dimensionless
ΣHQI = the annual sum of the increases in liquid level, ft/yr
HLX = maximum liquid height, ft, for horizontal tanks use (π/4)*D
HLN = minimum liquid height, ft, for horizontal tanks use 0

Annual sum of the increases in liquid level, ΣHQI
ΣHQI=(5.614*Q)/((PI/4)*D^2) [Eq 1-37]
ΣHQI = the annual sum of the increases in liquid level, ft/yr
5.614 =the conversion of barrels to cubic feet, ft3/bbl
Q = annual net throughput, bbl/yr
For horizontal tanks, use DE (Equation 1-14) in place of D in Equation 1-37

Net working loss throughput, VQ
VQ=(ΣHQI)*(PI/4)*D^2 [Eq 1-38]
VQ = annual sum of the increases in liquid level, ft3/yr
ΣHQI = the annual sum of the increases in liquid level, ft/yr
DE should be used for horizontal tanks in place of D in Equation 1-38

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Road Dust

Paved Road Parameters

Paved Road Distance [1]	0.38 miles
Estimated Total Vehicle Miles Traveled (VMT) [1]	50,000 VMT/yr
Particle Size Multiplier (k)[2]	
PM-30	0.011 lb/VMT
PM-10	0.0022 lb/VMT
PM-2.5	0.00054 lb/VMT
Road Surface Silt Loading (sL) [3]	9.7 g/m^2
Ave. Weight of Vehicles Traveling Road (W) [4]	12.21 tons
Light Duty Gasoline Vehicles (LDGV) [5]	2 tons
Heavy-Duty Gasoline Vehicles (HDGV) [1][6]	6.38 tons
Heavy-Duty Diesel Vehicles (HDDV) [1][6]	28.25 tons
Number of "Wet" days with at least 0.01 in during averaging period (P) [7]	150 days
Days in Averaging Period (N)	365 days

[1] Based on information provided by facility personnel.

[2] Based on AP-42, Table 13.2.1-1.

[3] Based on AP-42, Table 13.2.1-3. Assume industrial road at an iron/steel production facility.

[4] Average weight of LDGV, HDGV, and HDDV.

[5] Light-duty gasoline vehicle (LDGV) is an automobile, pickup truck, or any other general vehicle with a weight of less than 4 tons. Assume light-duty gasoline vehicles weigh on average 2 tons.

[6] Heavy-duty vehicle is a truck or other vehicle 4 tons or greater, including the weight of the material being transferred.

[7] Based on AP-42, Figure 13.2.1-2.

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Unpaved Road Parameters

Unpaved Road Distance [1]	0.75 miles
Estimated Total Vehicle Miles Traveled (VMT) [1]	1,700 VMT/yr
Empirical Constant *k* [2]	
PM-30	4.9 lb/VMT
PM-10	1.5 lb/VMT
PM-2.5	0.15 lb/VMT
Empirical Constant *a* [2]	
PM-30	0.7
PM-10	0.9
Empirical Constant *b* [2]	
PM-30	0.45
PM-10	0.45
Surface Material Silt Content (s) [3]	13.5 %
Number of "Wet" days with at least 0.01 in during averaging period (P) [4]	150 days
Ave. Weight of Vehicles Traveling Road (W) [5]	7.0 tons
Light Duty Gasoline Vehicles (LDGV) [6]	2 tons
Heavy-Duty Gasoline Vehicles (HDGV) [1][7]	2.5 tons
Heavy-Duty Diesel Vehicles (HDDV) [1][7]	16.5 tons

[1] Based on information provided by facility personnel.

[2] Based on AP-42, Table 13.2.2-2.

[3] Based on AP-42, Table 13.2.2-3. Assume surface silt content is the average between 1.8 - 25.2% for industrial roads.

[4] Based on AP-42, Figure 13.2.2-1.

[5] Average weight of LDGV, HDGV, and HDDV.

[6] Light-duty gasoline vehicle (LDGV) is an automobile, pickup truck, or any other general vehicle with a weight of less than 4 tons. Assume light-duty gasoline vehicles weigh on average 2 tons.

[7] Heavy-duty vehicle is a truck or other vehicle 4 tons or greater, including the weight of the material being transferred.

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Road Dust Potential To Emit (PTE) Calculations

Emission Calculations

Pollutant	Emission Factor (E) (lb/VMT)	Emissions (TPY) [1]
PM-30 [2]	---	28.94
Paved Roads [3]	1.00	25.04
Unpaved Roads [4]	4.59	3.90
PM-10	---	6.23
Paved Roads [3]	0.20	5.01
Unpaved Roads [4]	1.44	1.22
PM-2.5	---	1.35
Paved Roads [3]	0.05	1.23
Unpaved Roads [4]	0.14	0.12

[1] Emissions (TPY) = [Emission Factor E (lb/VMT)] x [VMT/yr] x [1 ton / 2000 lbs]
[2] Assume PM-30 = total suspended particulate matter (TSP).

[3] Based on AP-42, Chapter 13.2.1, Equation 2. $E = [k(sL)^{0.91} \times (W)^{1.02}] (1-P/4N)$

[4] Based on AP-42, Chapter 13.2.2, Equations 1a and 2. $E = k(s/12)^{a}(W/3)^{b}[(365-P)/365]$

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Torch Cutting

Subfacility ID:	Miscellaneous Emissions
Description:	Torch Cutting Fugitives

Hours of Operation [1]	8,760	man hrs.

Emission Calculations

Pollutant	Emission Factor (lb/hr cutting time) [2]	Emissions (TPY) [3]
PM	0.06	0.24

[1] Assumed 8,760 hours/yr.

[2] Emission factor based on Table D-5 in Institute of Scrap Recycling Industries, Inc. Title V Applicability Workbook. Washington DC: Institute of Scrap Recycling Industries, 1998.

[3] Torch cutting activities occur indoors; assume 90% of PM emissions is emitted to atmosphere and 10% of PM emissions settle inside building. Emissions (TPY) = [Emission Factor (lb/hr cutting time)] x [Annual Process Rate (man hrs/yr)] [0.90] x [1 ton/2000 lbs]

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Table 7
Parts Washer

Subfacility ID:	Miscellaneous Emissions
Description:	Parts Washers

Operating Information [1]

Number of Parts Washers On Site	2	
Capacity of each Parts Washer	15-20	gal
Solvent	ZEP DYNA 143	
Annual Solvent Throughput	35	gal/yr

[1] Based on information provided by facility personnel.

Emission Calculations

Solvent	Usage (gal)	Density (lb/gal) [1]	VOC Fraction [1]	VOC Emissions (TPY) [2]
Zep Dyna 143	35	6.59	1.00	0.12

[1] Based on solvent safety data sheet. Assumed VOC content is 100%.

[2] VOC (TPY) = [Annual Usage (gal/yr)] x [Density (lb/gal)] x [VOC Fraction] x [1 ton/2000 lbs]

APPENDIX D
Technical Support Documents

Updated – September 2013

CLEAN BURN
ENERGY SYSTEMS

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SPECIFICATIONS FOR CLEAN BURN COIL TUBE BOILER MODEL CB-500-CTB

PART 1 – GENERAL

1.1 **DEFINITIONS:** Throughout this bid specification the word "shall" appears frequently. The word "shall" indicates a **mandatory requirement** as per the Codes and Regulations that are listed in Part 1 – Section 1.4 through 1.4.4 of this bid specification as applicable.

1.2 **REQUIREMENTS:** General provisions of the purchase specifications, including general and other conditions, delivery requirements, shipping and demurrage charges will be under separate cover and shall apply.

1.3 **SCOPE:** This bid specification covers but is not limited to the fu rnishing of a CB-500-CTB, 500,000 BTU/hr (input) Coil Tube Boiler Package. This package shall include the following:

- One (1) CB-500-CTB 500,000 BTU/hr (input) low mass boiler (370,000BTU/hr output)
- One (1) CB-551-H5 used-oil firing burner
- One (1) Honeywell # L4006H-1004 100 to 240 °F high limit aquastat with manual reset button
- One (1) Honeywell # L4006H-2148 100 to 200 °F operating aquastat
- Two (2) Honeywell # 123870A ¾" NPT well adapters
- One (1) ITT McDonnell & Miller # 750P-MT-120 electronic low water cut-off with the PA-800 remote probe (included) with manual reset and testing buttons
- One (1) ITT McDonnell & Miller # FS4-3 or Taco flow switch and includes a stainless steel paddle
- One (1) Honeywell # AT40C 115 vac transformer with a 24 vac output coil
- One (1) Honeywell # R8222D 120 vac relay with a 24 vac coil
- One (1) Honeywell # ST82A spst 10 minute timed delayed (cut-off) circulator relay
- One (1) Dpdt (on / on) 125 vac / 50-60 hz / 1 ph toggle switch rated @ 15 amps
- One (1) Conbraco # 10-301-05 30 psig 550,000 BTU/hr rated pressure relief valve
- One (1) 3 1/4" diameter ½" NPT horizontal mounted tridicator
- One (1) Ceramic target (installed on the rear door of appliance)

- One (1) Ceramic combustion chamber sleeve
- One (1) Combustion chamber sleeve mounting stand
- One (1) Suntec used-oil pump assembly (Refer to part 2, Section 2.5 for the liste d pump options)
- One (1) Lenz # DH750-100 canister filter with a washable 100-mesh stainless steel screen filter element
- One (1) Oil vacuum gauge
- One (1) ¾" x ¾" in-line brass check valve
- One (1) ¾" in-line washable 50-mesh stainless steel screen check valve filter element
- One (1) Watts # 700014 1½" fip x 1½" fip bronze swing check valve
- One (1) Field Type 'M' 9" barometric damper control
- One (1) 9" x 10" reduced collar (for barometric damper)
- One (1) 10" 24-gauge galvanized sheet metal cap
- One (1) Field Controls DI-3 Draft Inducer
- One (1) CB-500-CTB Operator's Manual
- Burner oil line and airline components
- Miscellaneous piping, valves, and fittings (boiler installed)
- Miscellaneous bolts and fittings for assembly / installation of the appliance

Note: This is the standard package for the CB-500-CTB Coil Tube Boiler Packag e. You must o rder the mo unting stand assembly, the circula tor, and the stackable adapter bracket kit separately. (Refer to Part 2 – Sections 2.1.4, 2.1.5, and 2.1.6.)

1.4 **CODES AND REGULATIONS:** The installation of this ap pliance shall b e made i n accordance with the ma nufacturer's instructions, as well as i n accordance with all Federal, State, Regional, or Local Laws and / or Regulations acceptable to the Authority Having Jurisdiction (AHJ) and shall be accomplished only by a qualified, ce rtified, and competent heating technician experienced in making such installations as per NFPA 31 – Chapter 4 – Sections 4.3.2 and 4.3.3 and the Codes and Regulations that are listed i n Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

1.4.1 The design, materials and workmanship of the app liance, burner unit, and th e various other accessories furnished by Cle an Burn, LLC., as well as the in stallation of the appliance, shall fully comply with the re quirements of UL Standard 296A (Und erwriter's Laboratories File # MH 15393 and / or Underwriter's Laboratories of Canada File # CMP243) and NFPA 31 – Chapter 12 – Sections 12.1 through 12.4.3, ASME Section IV – Boiler Code for Pressure Vessels Manual, and the ASME Controls and Safety Devices Manual (CSD-1).

1.4.2 The installation shall fully comply with the following NFPA Codes: 30 – Flammable and Combustible Liquids, 30A – Motor Fuel Dispensing Facilities and Repair Garages, 31 – Standard for the Installation of Oil-Burning Equipment, 70 – National Electrical Code, 88A – Standard for Parking Structures, 88B – Standa rd for Repair Garages, and 211 – Standard for Chim neys, Fireplaces, Vents, and Solid-Fuel Burning Appliances as applicable.

1.4.3 The installation shall fully comply with the following International Codes: International Building Code, International Mechanical Code, International Fire Code , and the International Fuel Gas Code as applicable.

1.4.4 The installation shall fully comply wit h the followi ng CAN / CSA Standard s (when installing the appliance in Canada): B139-00 (ap proved October 2001) – Installation Code for Oil-Burning Equipment, B140.0-M87 (reaffirmed 2001) – General Requirements for Oil-Burning Equipment, B140.7.2-1967 (reaffirmed 1998), and C22.1-02 – Canadian Electric Code – Part 1 as applicable.

1.5 **RIGGING AND UNLOADING:** Vendors shall deliver to the site all equipment, components, and devi ces specified herein. Ri gging and / o r off-loading will be the responsibility of the purchaser or the purchasers designated agent.

PART 2 – PRODUCT

2.1 BOILER: The appliance shall be shipped assembled as a packaged, low mass coil tube boiler, suitable for firing used-oils and #2 - #5 heating fuels.

2.1.1 The appliance shall include a ceramic combustion chamber sleeve, a combustion chamber sleeve mounting stand, and a ceramic combustion chamber target.

2.1.2 The appliance shall be UL / ULC listed and tested to burn the used-oils as per NFPA 31, Chapter 12, Section 12.4.1, 12.4.2, and 12.4.3.

2.1.3 The appliance shall be complete with one used-oil burner assembly, one used-oil pump assembly, and all devices and controls required for safe and efficient operation of the appliance as per ASME CSD-1.

2.1.4 The appliance does not come with a mounting stand assembly as a standard item. When ordering the appliance, you must also order a mounting stand assembly (CB Part # 90206).

2.1.5 The appliance does not come with a circulator installed on the appliance as a standard item. When ordering the appliance, you must also order a circulator assembly:
- TACO 1400-50/2 circulator 37 gpm @ 22 ft. head (CB Part # 35130)

2.1.6 When installing more than one appliance on the job site, you can stack this appliance two high by ordering the stacking adapter bracket kit (CB Part # 11578).

2.2 CONSTRUCTION: The appliance shall be of standard construction low mass coil tube design, and it shall be built in accordance with the ASME Section IV – Boiler Code for Pressure Vessels.

2.2.1 The appliance shall be constructed to operate as a three-pass heat exchanger design.

2.2.2 The combustion chamber and shell shall be made from a combination of 11-gauge, 12-gauge, and 14-gauge steel.

2.2.3 The appliance shall have a combustion chamber liner and a liner protector that shall be made from 16-gauge 304 stainless steel.

2.2.4 The appliance shall have a ceramic combustion chamber sleeve and mounting stand and a ceramic combustion target.

2.2.5 A 3" diameter opening, with a spring closing flame observation port door shall be provided at the front of the appliance on the front swing out door. This port shall be located on the left side of the front swing out door just above and to the left of the burner so that an inspection of the combustion chamber area can be made, both when the appliance is in operation or at rest.

2.2.6 The front door shall be of a hinged, swing out design and shall be large enough to permit access for the inspection and maintenance of the coil tube assembly, ceramic combustion sleeve and mounting stand, and the ceramic target.

2.2.7 The rear door shall be of a bolt on type and include the ceramic target.

2.2.8 The front and rear door panels shall be insulated with a 2" thick piece of 2,300 °F ceramic fiberboard approved insulating material.

2.2.9 The appliance shall use an approved insulation gasket material of 2,300 °F to seal all assembled sections of the applia nce, and t he entire appliance shall b e insulated and sealed tight to prevent the escape of heat and combustion gases.

2.2.10 The coil tube shall b e fabricated from 195' l ong seamless cold drawn 1½" diameter Schedule 40 SA 106B carbon steel tubing and shall carry the ASME 'H' Stam p Certification and the National Board Number.

2.2.11 Each coil tube assembly shall b e coiled as a single unit and h ydro tested as per the requirements of ASME Section IV – Boiler Code for Pressure Vessels.

2.2.12 The coil tube assembly shall be rem ovable from the appliance to facilitate inspection of the coil tube assembly or for the repair and / or replacement of the coil tube assembly.

2.2.13 The appliance shall be provided with a wrap around 22-gauge steel jacket with a baked on powder coat finish.

2.2.14 The size, capacity, and operation of the a ppliance shall be designed as shown in the following:

- 500,000 BTU/hr input rating
- 370,000 BTU/hr output rating
- 70 psig tested design pressure
- 30 psig maximum operating pressure
- 97 square feet of heating surface
- 20 gallon water volume capacity
- 37 gpm design water flow rate @ 22 feet of head
- 3.57 gph oil consumption
- Dedicated spst 20 a mp electrical circuit requiring the installation of a 12/2 copper power supply wire rated @ 115 vac / 60 hz / 1 ph (standard)
- Dedicated spst 30 a mp electrical circuit requiring the installation of a 10/2 copper power supply wire rated @ 115 vac / 60 hz / 1 ph (optional – used when installing draft inducers or on-board compressors)
- 2.5 cfm compressed air requirement @ 25 psig
- 10" stack size
- Cabinet dimensions (from burner end without the burner, boiler stand, or accessories installed) – 73" long x 44¼" wide x 41¾" high
- Overall dimensions (from burner end with the burner, boiler stand, and all accessories installed) – 85½" long x 51" wide x 60¾" high
- Approximate shipping weight – 1,760 lbs

2.3 **INSTALLATION:** The appliance shall be installed in an approved boiler room as per the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.3.1 The appliance shall b e installed and mounted on a level fou ndation base capable of supporting and distributing the weight of the appliance as per the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.3.2 The appliance shall be installed and mounted on floors of n on-combustible construction (concrete) only as per the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.3.3 The appliance shall not be raised above the floor level (except for the approved mounting stand assembly), suspended or hung from the ceiling, installed on an elevated platform or stand, or placed over top of any equipment, an office space, parts room, etc., or installed in any other manner other than as directed by the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.3.4 The appliance shall be supplied with the proper amount of combustion air to permit the satisfactory combustion of the oil, the proper venting of the combustion gases, and to maintain a safe ambient temperature within the space that the appliance is installed in as per the Codes and Regulations that are listed in Part 1 – Section 1.4 through 1.4.4 of this bid specification as applicable.

2.3.5 When installing this appliance in an unconfined space, the minimum amount of combustion air supplied to this appliance shall be from one permanent opening, installed within 12" of the ceiling of the room, totaling 110 square inches at a rate of 268 cfm of free air for a single appliance application as per the Codes and Regulations that are listen in Part 1 – Section 1.4 through 1.4.4 of this bid specification as applicable. When installing more than one appliance into the same unconfined space, you must adjust these minimum requirements to accept all of the appliances within that space.

2.3.6 When installing this appliance in a confined space, the minimum amount of combustion air supplied to this appliance shall be from two permanent openings, one opening installed within 12" of the ceiling of the room and one opening installed within 12" of the floor of the room, with each opening totaling 138 square inches at a rate of 537 cfm of free air for a single appliance application as per the Codes and Regulations that are listed in Part 1 – Section 1.4 through 1.4.4 of this bid specification as applicable. When installing more than one appliance into the same confined space, you must adjust these minimum requirements to accept all the appliances within that space.

2.3.7 When installing louvers and grills to bring the combustion air into the room and the actual free area of the louver or grill is not known, it is understood that wooden louvers and grills will have a free area of 25% while metal louvers and grills will have a free area of 75% as per the Codes and Regulations that are listed in Part 1 – section 1.4 through 1.4.4 of this bid specification as applicable.

2.3.8 All louvers and grills, regardless of the material that they are made from, shall be fixed in the open position, or be interlocked with the appliance(s) so that they will open automatically during the operation of the appliance(s). The interlock must be placed on the driven member as per ASME CSD-1 – Part CG – Section CG-260-b and the Codes and Regulations that are listed in Part 1 – Section 1.4 through 1.4.4 of this bid specification as applicable.

2.3.9 When installing a mechanical fan assembly to provide the combustion air, the fan shall be interlocked with the appliance's burner(s) so that combustion air is proven before and during the operation of the appliance(s) as per ASME CSD-1 – Part CG – Section CG-260-c and the Codes and Regulations that are listed in Part 1 – Section 1.4 through 1.4.4 of this bid specification as applicable.

2.3.10 The combustion air shall be supplied into this boiler room as per the requirements of ASME-CSD-1 – Part CG – Sections CG-260-a, 260-b, and 260-c and the Codes and Regulations that are listed in Part 1 – Section 1.4 through 1.4.4 of this bid specification as applicable.

2.3.11 The appliance shall be installed to fit into the space available with the following minimum clearances from combustible surfaces and / or for the servicing of the appliance:

- Top – 18"
- Front (burner) side – 48"
- Rear (stack) side– 58"
- Left side – 6" (36" may be required by your local code)
- Right side – 36"
- Stack – 18"
- Bottom – 6"
- All supply and return piping – 1 1/2"

2.3.12 Installation, operating, and maintenance permits may be required by the Authority Having Jurisdiction (AHJ). It is the responsibility of the purchaser, designated agent, contractor, or installer of the appliance to check with the AHJ as to the proper procedures to follow for the completion of this installation.

2.3.13 Installation inspections of the finished job may also be required by the Authority Having Jurisdiction (AHJ). It is the responsibility of the purchaser, designated agent, contractor, or installer of the appliance to check with the AHJ as to the proper procedures to follow for the completion of this installation.

2.3.14 On-site certification of the appliance may be required by the Authority Having Jurisdiction (AHJ). It is the responsibility of the purchaser, designated agent, contractor, or installer of the appliance to check with the AHJ as to the proper procedures to follow for the completion of this installation.

2.3.15 It is the responsibility of the purchaser, designated agent, contractor, or installer of the appliance to check with the Authorities Having Jurisdiction (AHJ) as to the proper procedures to follow for the completion of this installation.

2.4 **USED-OIL BURNER:** Clean Burn, LLC shall supply one complete used-oil burner, factory assembled, and suitable for the burning of used-oils.

2.4.1 The used-oil burner shall be UL / ULC listed and tested to burn the following used-oils:

- # 2, # 4, & # 5 fuel oils
- Used crankcase oils up to SAE 50 weight
- Used automatic transmission fluids
- Used hydraulic oils

2.4.2 The used-oil burner shall be constructed, wired, and fire tested by Clean Burn, LLC.

2.4.3 The used-oil burner shall be shipped loose for field mounting and packaged in a separate carton.

2.4.4 Clean Burn, LLC shall manufacture the used-oil burner with quantity, capacity, and ratings as per schedule.

2.4.5 The used-oil burner shall be equipped with a high resistance, flame retention, all stainless steel firing head, with a conical stainless steel diffuser, and shall operate with no moving parts. The flame pattern shall be such that impingement will not occur on the chamber walls at any load within the specified range of operating conditions.

2.4.6 The used-oil burner nozzle assembly shall contain the oil nozzle, the nozzle adapter, the nozzle heater and thermostat, and the single piece electrode and shall be made in such a way as to allow the nozzle assembly to be removable from the burner as a single unit.

2.4.7 The used-oil burner shall be equipped with both oil and air safety devices to prevent the operation of the burner should either of these items fail durin g their norm al function. These devices shall be controlled by the oil primary control and will stop the operation of the burner upon flame or air failure.

2.4.8 The used-oil burner shall be controlled by a flame sensor device (a cadmium sulfide cell) which will stop the burner when a flame failure occurs.

2.4.9 The flame sensor shall be connected to the primary safety control that shall fail in an open position and "lock-out" the control.

2.4.10 The primary safety control shall require the manual resetting of the safety switch anytime the burner has a no-oil or no-spark (ignition) condition.

2.4.11 If the primary safety control fails while in operation but the flame has been established and proven, the primary safety control shall be of a recycling type which will allow the burner up to three retries for ignition before the control will "lock-out".

2.4.12 The primary safety control shall be completely wired and tested by the manufacturer for this safety function.

2.4.13 Each used-oil burner shall be fully in accord with the requirements of and approved by Underwriter's Laboratories and Underwriter's Laboratories of Canada.

2.4.14 The used-oil burner shall be factory fabricated and be complete with the following:

- One (1) Single burner / fan ho using assembly with side mounted combustion air inlets
- One (1) Stainless steel flame retention head
- One (1) Hinged swing out burner mounting bracket
- One (1) 4-wire power cord disconnect assembly with connector plug and receptacle
- One (1) Burner motor with a 1/10th hp motor @ 3,000 rpm TENV, DP, PSC, sealed, ball bearing, ccw-se rotation, N frame, stud mounted, 3.3" diameter motor, with a 7.5 uf (mfd) / 370 vac capacitor
- One (1) Integral squirrel cage draft fan
- One (1) Set of dual inner /outer combustion draft control plates
- One (1) Heated oil block assembly
- One (1) 400 watt thermostat controlled block heater
- One (1) 120 °F block heater-proving switch
- One (1) 140 °F block thermostat
- One (1) Air regulator
- One (1) Oil solenoid
- One (1) Air solenoid
- One (1) Internally motor mounted centrifugal proving switch
- One (1) Air pressure proving switch
- One (1) Carlin # 41000B, 14,000 vac electric igniter
- One (1) Carlin # 50200-02, 30 second safety timing, solid-state primary control with manual reset safety switch
- One (1) Honeywell # C-554A cadmium sulfide flame sensor
- One (1) Single piece direct spark igniter
- One (1) Thermostat controlled heated nozzle adapter
- One (1) L-130 nozzle adapter thermostat
- One (1) 140 watt thermostat controlled nozzle heater
- One (1) Delavan 9-28 nozzle
- One (1) 0-15 psig oil pressure gauge

- One (1) 0-60 psig air pressure gauge
- One (1) Run time hour meter
- One (1) Green indicator light for power on indication
- One (1) Amber indicator light for oil pump on indication

2.5 **USED-OIL FUEL SYSTEM:** The CB-500-CTB Coil Tube Boiler is available with two choices of oil pumps that are both rated for use with used-oil applications. The pumps will have the following description:

Option # 1 – Metering Pump Assembly

- One (1) Suntec model A2RA-7710 used-oil pump assembly with a 1/20th hp motor TENV, DP, PSC, sealed, ball bearing, ccw-se rotation, 100 AC frame, parallel shaft, close coupled stud mounted, 3.42" diameter gear motor, with a 6 uf (mfd) / 250 vac capacitor
- One (1) Oil pump relief valve assembly
- One (1) Lenz # DH750-100 canister filter with a washable 100-mesh stainless steel screen filter element
- One (1) Oil vacuum gauge
- One (1) ¾" x ¾" in-line brass check valve
- One (1) ¾" in-line washable 50-mesh stainless steel screen filter element for the check valve.

Option # 2 – Pressure Style Pump Assembly

- One (1) Suntec model J4NB-A1000G used-oil pump assembly with a 1/6th hp motor @ 1,725 rpm, TENV, DP, ball bearing, ccw-se rotation, 48N frame, parallel shaft, close coupled, 7 ¼" bolt hole mount (center to center), 5 ½" diameter motor
- One (1) Lenz # DH750-100 canister filter with a washable 100-mesh stainless steel screen filter element
- One (1) Oil vacuum gauge
- One (1) ¾" x ¾" in-line brass check valve
- One (1) ¾" in-line washable 50-mesh stainless steel screen filter element for the check valve
- One (1) Oil regulator (used only on burners that use a 'J' pump)

2.5.1 The Suntec model A2RA-7710 used-oil pump assembly (option # 1) shall be installed as a suction fed only pump and it shall have a maximum vertical lift capacity of 6 feet of suction oil line plus a maximum of 4 feet of horizontal suction oil line.

2.5.2 The Suntec model A2RA-7710 used-oil pump assembly (option # 1) is not an adjustable pressure range pump. The gear motor is rated to deliver the correct amount of fuel per hour (3.57 gph) to the burner unit.

2.5.3 The Suntec model A2RA-7710 used-oil pump assembly (option # 1) shall have a washable 234-micron stainless steel filter screen installed inside of the pump head. (Refer to the CB-500-CTB Operator's Manual for the proper installation of this pump.)

2.5.4 The suction oil line size for the Suntec model A2RA-7710 used-oil pump (option # 1) shall be ½" OD copper tubing from the used-oil tank to the pump.

2.5.5 The pressure oil line size for the Suntec model A2RA-7710 used-oil pump (option # 1) shall be 3/8" OD copper tubing from the used-oil pump head to the burner unit with a maximum run of 100 feet of tubing. (Please note that some installations will allow for a greater pressure line length. Contact your Authorized Clean Burn Distributor for more information.)

2.5.6 The Suntec model J4NB-A1000G used-oil pump assembly (option # 2) shall be installed as a suction fed only pump and it shall have a maximum vertical lift capacity of 10 feet of suction oil line plus a maximum of 30 feet of horizontal suction oil line (not to exceed 10" Hg of vacuum).

2.5.7 The Suntec model J4NB-A1000G use-oil pump (option # 2) shall have an adjustable pressure range of 20 to 40 psig.

2.5.8 The Suntec model J4NB-A1000G use-oil pump (option # 2) shall have a washable 234-micron stainless steel filter screen installed inside of the pump head. (Refer to the CB-500-CTB Operator's Manual and J-Pump Installer's Manual for the proper installation of this pump.)

2.5.9 The suction oil line size for the Suntec model J4NB-A1000G use-oil pump (option # 2) shall be ½" OD copper tubing running from the used-oil tank to the pump head.

2.5.10 The pressure oil line size, from the used-oil pump head to the burner unit, for the Suntec model J4NB-A1000G use-oil pump (option # 2) shall be 3/8" OD copper tubing if less than 75' and ½" OD copper tubing if it is 75' to a maximum of 150'.

2.5.11 All of the Clean Burn used-oil fuel supply units are designed to be used as one-pipe suction fed pump system.

2.5.12 It is recommended that the used-oil be supplied from an inside tank for the best performance and operation of the appliance.

2.5.13 It is recommended that when using an outside above ground tank or an outside below ground tank that you install a "day tank" inside of the building and a pumping transfer system for the best performance and operation of the appliance.

2.5.14 The used-oil pump assembly shall be mounted above the oil tank and be as close to the top of the tank as possible.

2.5.15 When installing more than one appliance into the building each appliance shall have its own used-oil pump assembly for each burner.

2.5.16 A return line from the pump to the tank is not required. However, with the metering pump assembly (option #1) there is a relief valve assembly on the outlet of the pump head that requires a return line to the tank.

2.5.17 The used-oil pump assembly shall be a close coupled gear type pump.

2.6 **STACK:** The CB-500-CTB requires one 10" 24-gauge galvanized sheet metal stack off of the back of the appliance. The stack can be installed on either one of the two stack breech openings off of the back of the appliance. The un-used stack breeching must be capped off with the 10" 24-gauge galvanized sheet metal cap that is included with the appliance.

2.6.1 The appliance includes one Field Type 'M' 9" barometric damper. This damper shall be installed in the exhaust stack leaving the appliance and be installed within 3 to 5 feet of the breeching outlet as per the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.6.2 This barometric damper shall be adjusted to maintain a natural draft over-the-fire of -.02" W.C. to a -.04" W.C. and a stack draft of -.04" W.C. to -.06" W.C. at all times.

2.6.3 All other stack materials needed to install this appliance shall be the responsibility of the installer.

2.6.4 Single wall stack can be used on the appliance on the inside of the building only. Where single wall stack can be used it must be 24-gauge galvanized sheet metal only as per the Codes and Regulations that are listed in Part 1 – Section 1.4 through 1.4.4 of this bid specification as applicable.

2.6.5 **DO NOT USE** Type 'B' or 'BW' Vent which is a non-insulated double walled stack approved for LP and natural gas fired appliances only as per the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.6.6 **DO NOT USE** Type 'L' Vent which is a non-insulated double walled stack approved for some #2 fuel oil and pellet burning appliances only as per the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.6.7 **DO NOT USE** the black decorative style of vent which is a single walled stack approved for solid-fuel burning appliances only as per the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.6.8 Where any penetration of a floor, a wall, through the ceiling, into an attic space, where people may brush against the outside surface of the stack, or when you run any stack on the exterior of the building, you shall use an all-fuel pipe material that meets UL Standard 103 Type HT pipe requirements as per the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.6.9 Stack that is installed and used for this penetration protection of the building, shall be rated for a chimney temperature suitable for use at 1,000 °F, and shall be tested to the UL Standard 103 Type HT pipe requirement as per the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

2.6.10 The all-fuel /UL 103 Type HT double walled insulated stack with stainless steel inner core is available through the local Clean Burn Distributor. (Refer to the CB-500-CTB Operator's Manual for the proper way to install the stack, and when to use single wall stack and when you must use the all-fuel /UL 103 Type HT double walled insulated stack.)

PART 3 – ADDITIONAL INFORMATION

3.1 **GENERAL:** The installation of this appliance shall be made in accordance with the manufacturers' instructions, as well as in accordance with all Federal, State, Regional, or Local Laws and / or Regulations acceptable to the Authority Having Jurisdiction (AHJ) and shall be accomplished only by a qualified, certified, and competent heating technician experienced in making such installations as per NFPA 31, Chapter 4, Sections 4.3.2 and 4.3.3 and the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

3.1.1 Installation, operation, and maintenance permits may be required by the Authority Having Jurisdiction (AHJ). It is the responsibility of the purchaser, designated agent, contractor, or installer of the appliance to check with the AHJ as to the proper procedures to follow for the completion of this installation.

3.1.2 Installation inspections of the finished job may also be required by the Authority Having Jurisdiction (AHJ). It is the responsibility of the purchaser, designated agent, contractor, or installer of the appliance to check with the AHJ as to the proper procedures to follow for the completion of this installation.

3.1.3 On-site certification of the appliance may be required by the Authority Having Jurisdiction (AHJ). It is the responsibility of the purchaser, designated agent, contractor, or installer of the appliance to check with the AHJ as to the proper procedures to follow for the completion of this installation.

3.1.4 All appliances shall be tested and installed in accordance with the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable.

3.1.5 All materials utilized in the installation shall be in strict accordance with the Codes and Regulations that are listed in Part 1 – Sections 1.4 through 1.4.4 of this bid specification as applicable and shall be new and of the best grade and quality.

3.1.6 The bidder must have local service capability to provide on-site service.

3.1.7 The bidder must have current authorization from Clean Burn, LLC. to provide warranty service.

3.2 **OPERATOR MANUALS:** Each appliance comes with one complete CB-500-CTB Operator's Manual included inside of the appliance at time of shipping. Clean Burn, LLC will supply up to four additional CB-500-CTB Operator's Manuals at no charge for the bidding purpose. If more copies of CB-500-CTB Operator's Manuals are required, they can be ordered through the local Clean Burn Distributor.

PART 4 – WARRANTY

4.1 **WARRANTY INFORMATIOIN:** Clean Burn, LLC shall warrant the CB-500-CTB Coil Tube Boiler and all other Clean Burn products to be free from defects in material and workmanship under normal use according to the provisions and limitations set in the Operator's Manual for a period of one year from the date of purchase by the original purchaser.

Clean Burn, LLC warrants the burner and Coil Tube Boiler for a period of one (1) year from the date of purchase by the original purchaser. The steel coil tube section of the boiler only shall carry a limited warranty for a period of three (3) years from the date of purchase by the original purchaser.

4.1.1 The coil tube of the appliance shall carry a limited warranty for a period of three years from the date of purchase by the original purchaser.

4.1.2 The customer shall be responsible for all freight charges incurred for any replacement parts of appliance cabinets shipped to either the Clean Burn Distributor or to the customer during the covered warranty period.

4.1.3 A complete warranty covering this appliance can be found inside the front cover of the CB-500-CTB Operator's Manual.

4.1.4 Clean Burn, LLC does not warrant any labor for the installation of any failed parts, the labor for the removal and re-installation of the appliance cabinet for any repairs done to the appliance or for the total replacement of the cabinet, or any labor for repairs done to the appliance during the warranty period.

4.1.5 Clean Burn, LLC is not responsible for any freight or expenses that may be required to ship any repair parts or replacement cabinets to either the Clean Burn Distributor or to their customers.

4.1.6 No other warranty, verbal, implied, or written shall be honored by Clean Burn, LLC unless it comes directly from Clean Burn's Director of Field Engineering & Technical Support in written form with all parties notified as to the changes and / or additions in the warranty.

ANALYTICAL REPORT

Lab Number:	L2260252
Client:	Barton & Loguidice 11 Centre Park Drive Rochester, NY 14614
ATTN:	Dave Hanny
Phone:	(585) 325-7190
Project Name:	METALLICO PITTSBURGH
Project Number:	1206.018.013
Report Date:	11/10/22

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2260252-01	PITT WO	OIL	NEVILLE ISLAND	10/26/22 15:45	10/27/22

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The Ash analysis was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Total Metals

The WG1708747-1 Method Blank, associated with L2260252-01, has a concentration above the reporting limit for arsenic. Since the associated sample concentration is non-detect to the RL for this target analyte, no corrective action is required. Any results detected below the reporting limit are qualified with a "B".

The WG1708747-2 LCS recovery, associated with L2260252-01, is above the acceptance criteria for chromium (178%); however, the associated samples are non-detect to the RL for this target analyte. The results of the original analysis are reported.

The WG1708747-3 MS recovery, performed on L2260252-01, is outside the acceptance criteria for chromium (237%). A post digestion spike was performed and was within acceptance criteria.

Flash Point

L2260252-01: Due to minimal sample volume received, analysis could not be performed with the correct sample volume specified by the method and the result should be considered invalid.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker Cristin Walker

Title: Technical Director/Representative

Date: 11/10/22

ORGANICS

PCBS

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

SAMPLE RESULTS

Lab ID: L2260252-01
Client ID: PITT WO
Sample Location: NEVILLE ISLAND

Date Collected: 10/26/22 15:45
Date Received: 10/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Analytical Method: 1,8082A
Analytical Date: 11/09/22 01:10
Analyst: ER
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A
Extraction Date: 11/08/22 15:26
Cleanup Method: EPA 3665A
Cleanup Date: 11/08/22
Cleanup Method: EPA 3660B
Cleanup Date: 11/08/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		mg/kg	2.74	0.406	1	A
Aroclor 1221	ND		mg/kg	2.74	0.458	1	A
Aroclor 1232	ND		mg/kg	2.74	0.970	1	A
Aroclor 1242	ND		mg/kg	2.74	0.617	1	A
Aroclor 1248	ND		mg/kg	1.83	0.686	1	A
Aroclor 1254	ND		mg/kg	2.74	0.500	1	A
Aroclor 1260	ND		mg/kg	1.83	0.845	1	A
Aroclor 1262	ND		mg/kg	0.915	0.581	1	A
Aroclor 1268	ND		mg/kg	0.915	0.474	1	A
PCBs, Total	ND		mg/kg	0.915	0.406	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	102		30-150	B
Decachlorobiphenyl	94		30-150	B
2,4,5,6-Tetrachloro-m-xylene	102		30-150	A
Decachlorobiphenyl	94		30-150	A

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 11/09/22 00:44
Analyst: ER

Extraction Method: EPA 3580A
Extraction Date: 11/08/22 15:26
Cleanup Method: EPA 3665A
Cleanup Date: 11/08/22
Cleanup Method: EPA 3660B
Cleanup Date: 11/08/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1709661-1						
Aroclor 1016	ND		mg/kg	2.76	0.409	A
Aroclor 1221	ND		mg/kg	2.76	0.462	A
Aroclor 1232	ND		mg/kg	2.76	0.976	A
Aroclor 1242	ND		mg/kg	2.76	0.621	A
Aroclor 1248	ND		mg/kg	1.84	0.691	A
Aroclor 1254	ND		mg/kg	2.76	0.504	A
Aroclor 1260	ND		mg/kg	1.84	0.851	A
Aroclor 1262	ND		mg/kg	0.921	0.585	A
Aroclor 1268	ND		mg/kg	0.921	0.477	A
PCBs, Total	ND		mg/kg	0.921	0.409	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	78		30-150	B
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	86		30-150	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1709661-2 WG1709661-3									
Aroclor 1016	92		98		40-140	6		50	A
Aroclor 1260	83		90		40-140	8		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		89		30-150	B
Decachlorobiphenyl	88		96		30-150	B
2,4,5,6-Tetrachloro-m-xylene	84		91		30-150	A
Decachlorobiphenyl	97		101		30-150	A

METALS

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

SAMPLE RESULTS

Lab ID: L2260252-01
Client ID: PITT WO
Sample Location: NEVILLE ISLAND

Date Collected: 10/26/22 15:45
Date Received: 10/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Oil
Percent Solids: Results are reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.921	JB	mg/kg	1.49	0.310	1	11/07/22 19:39	11/08/22 21:50	EPA 3050B	1,6010D	DHL
Cadmium, Total	ND		mg/kg	1.49	0.146	1	11/07/22 19:39	11/08/22 21:50	EPA 3050B	1,6010D	DHL
Chromium, Total	0.563	J	mg/kg	1.49	0.143	1	11/07/22 19:39	11/08/22 21:50	EPA 3050B	1,6010D	DHL
Lead, Total	0.611	J	mg/kg	7.46	0.400	1	11/07/22 19:39	11/08/22 21:50	EPA 3050B	1,6010D	DHL

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1708747-1										
Arsenic, Total	1.43		mg/kg	1.00	0.208	1	11/07/22 19:39	11/08/22 19:36	1,6010D	DHL
Cadmium, Total	ND		mg/kg	1.00	0.098	1	11/07/22 19:39	11/08/22 19:36	1,6010D	DHL
Chromium, Total	ND		mg/kg	1.00	0.096	1	11/07/22 19:39	11/08/22 19:36	1,6010D	DHL
Lead, Total	ND		mg/kg	5.00	0.268	1	11/07/22 19:39	11/08/22 19:36	1,6010D	DHL

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1708747-2								
Arsenic, Total	114		-		79-121	-		
Cadmium, Total	108		-		83-117	-		
Chromium, Total	**178**	Q	-		80-120	-		
Lead, Total	101		-		81-117	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1708747-3 QC Sample: L2260252-01 Client ID: PITT WO												
Arsenic, Total	0.921JB	35.7	38.9	109		-	-		75-125	-		20
Cadmium, Total	ND	15.8	16.7	106		-	-		75-125	-		20
Chromium, Total	0.563J	59.5	141	**237**	Q	-	-		75-125	-		20
Lead, Total	0.611J	158	158	100		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1708747-4 QC Sample: L2260252-01 Client ID: PITT WO						
Arsenic, Total	0.921JB	0.915J	mg/kg	NC		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	0.563J	0.554J	mg/kg	NC		20
Lead, Total	0.611J	0.539J	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

SAMPLE RESULTS

Lab ID: L2260252-01
Client ID: PITT WO
Sample Location: NEVILLE ISLAND

Date Collected: 10/26/22 15:45
Date Received: 10/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Oil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Flash Point	>150		deg F	70	NA	1	-	11/10/22 04:00	1,1010A	MRM

Lab Control Sample Analysis
Batch Quality Control

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1710358-1								
Flash Point	100		-		96-104	-		

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2260252-01A	Metals Only-Glass 60mL/2oz unpreserved	C	NA		2.5	Y	Absent		AS-TI(180),CR-TI(180),PB-TI(180),CD-TI(180)
L2260252-01B	Glass 60mL/2oz unpreserved	C	NA		2.5	Y	Absent		FLASH(),PCB-8082LL(365)
L2260252-01C	Amber 250ml unpreserved	C	NA		2.5	Y	Absent		SUB-PERCENT ASH(),SUB-PERCENT WATER(28)
L2260252-01D	Amber 1000ml unpreserved	C	NA		2.5	Y	Absent		FLASH(),PCB-8082LL(365)
L2260252-01E	Plastic 950ml unpreserved	C	NA		2.5	Y	Absent		ARCHIVE()

*Values in parentheses indicate holding time in days

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name: METALLICO PITTSBURGH **Lab Number:** L2260252

Project Number: 1206.018.013 **Report Date:** 11/10/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name: METALLICO PITTSBURGH
Project Number: 1206.018.013

Lab Number: L2260252
Report Date: 11/10/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2**: THMs and VOCs; **EPA 504.1**: EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.**

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300**: **Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 10/28/22

ALPHA Job #: L2260252

Client Information
Client: Bacon & LoGuidice
Address: Rochester, NY
Phone: 585 325 7190
Fax:
Email: dhanny@baconandloguidice.com

Project Information
Project Name: METALICO PITTSBURGH
Project Location: NEVILLE ISLAND
Project #: 1206.018.013
(Use Project name as Project #): [X]
Project Manager: DALE HANNY
ALPHAQuote #:

Turn-Around Time
Standard: [X] Due Date:
Rush (only if pre approved): [ ] # of Days:

Deliverables
[X] ASP-A [ ] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement
[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information
[X] Same as Client Info
PO #: 1206.018.013

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[X] Other: PA

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

Please specify Metals or TAL. Arsenic, Cadmium, Chromium, Lead

ANALYSIS

Sample Filtration
[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	FLASHPOINT EPA 1010A	TCL PCBs - EPA 8082A	TOTAL RCRA METALS EPA 6010D/7471	PERCENT ASH	BOTTOM SEDIMENT & WATER	Total Bottle	Sample Specific Comments
62857-01	PITT WO	10/25/22	1545	L	DH	X	X	X	X	X		See Attached For Minimum Detection Limits

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	10/27/22 1250		10/27/22 1250
R Cunningham AAC	10/27/22 12:50		10/28/22 08:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

f **Federal Requirements.**

1. All solid waste combustion emissions and operating standards and operator training programs promulgated or developed by the Administrator under Sections 111 and 129 of the Clean Air Act are hereby incorporated by reference into this Article. Additions, revisions, or deletions to the standards and programs adopted by the Administrator are incorporated into this Article and are effective on the date established by the Federal standards and programs, unless otherwise established by regulation under this Article.

2. No person shall operate, or allow to be operated, any incinerator in such manner as to violate any of the applicable provisions of Paragraph 1 of this Subsection.

g **Measurements.** Measurements of afterburner temperatures, particulate emissions, and visible emissions shall be conducted according to the procedures set forth in Part G of this Article.

§2105.31 WASTE-DERIVED LIQUID FUEL

[Paragraphs b.7 & c.6 restored May 7, 1998, effective May 15, 1998]

b **Fuel Specifications.** Specification fuel shall comply with the following fuel specifications, and all specifications in this Subsection that are defined in parts per million or percentage are by weight:

1. For all equipment subject to this Section:

Arsenic	5	ppm	maximum
Cadmium	2	ppm	maximum
Chromium	10	ppm	maximum
Lead	100	ppm	maximum
PCB's	5	ppm	maximum
Ash	0.3	%	maximum
Bottom Sediment and Water	2.0	%	maximum
Flash Point	100	degrees F	minimum

except:

A. The minimum flash point specification does not apply to waste-derived liquid fuels that are both generated and burned at the same location; and

B. The maximum allowed ash content is 1.2% for fuel-burning or combustion space heaters with a rated heat input of 500,000 BTU per hour or less.

2. For equipment subject to Subparagraph 6.A of Subsection b of this Section:

Total Halogens	1,000	ppm	maximum
Heat of Combustion	18,000	BTU/lb.	minimum

3. For equipment subject to Subparagraph 6.B of Subsection b of this Section:

Total Halogens	1,000	ppm	maximum
Heat of Combustion	8,000	BTU/lb	minimum

Sterling Analytical, Inc.
15 Agawam Avenue
West Springfield, MA 01089
Phone (413) 214-6541 Fax (413) 214-6842

Visit our website: www.sterlinganalytical.com

Report Date November 3, 2022

Customer	Contact	Laboratory Supervisor	eMail
Alpha Analytical Lab	M. Deyo	Dale Percoski	customerservice@sterlinganalytical.com

Sample Description
Analysis of Oil Sample

Samples Analyzed

Enclosed are Report No(s): 78380

Thank you for your business

Dale Percoski
Dale Percoski, Laboratory Supervisor

11/3/2022
Date

Visit our website: www.sterlinganalytical.com

Sample Analysis

Work Order 22-1119

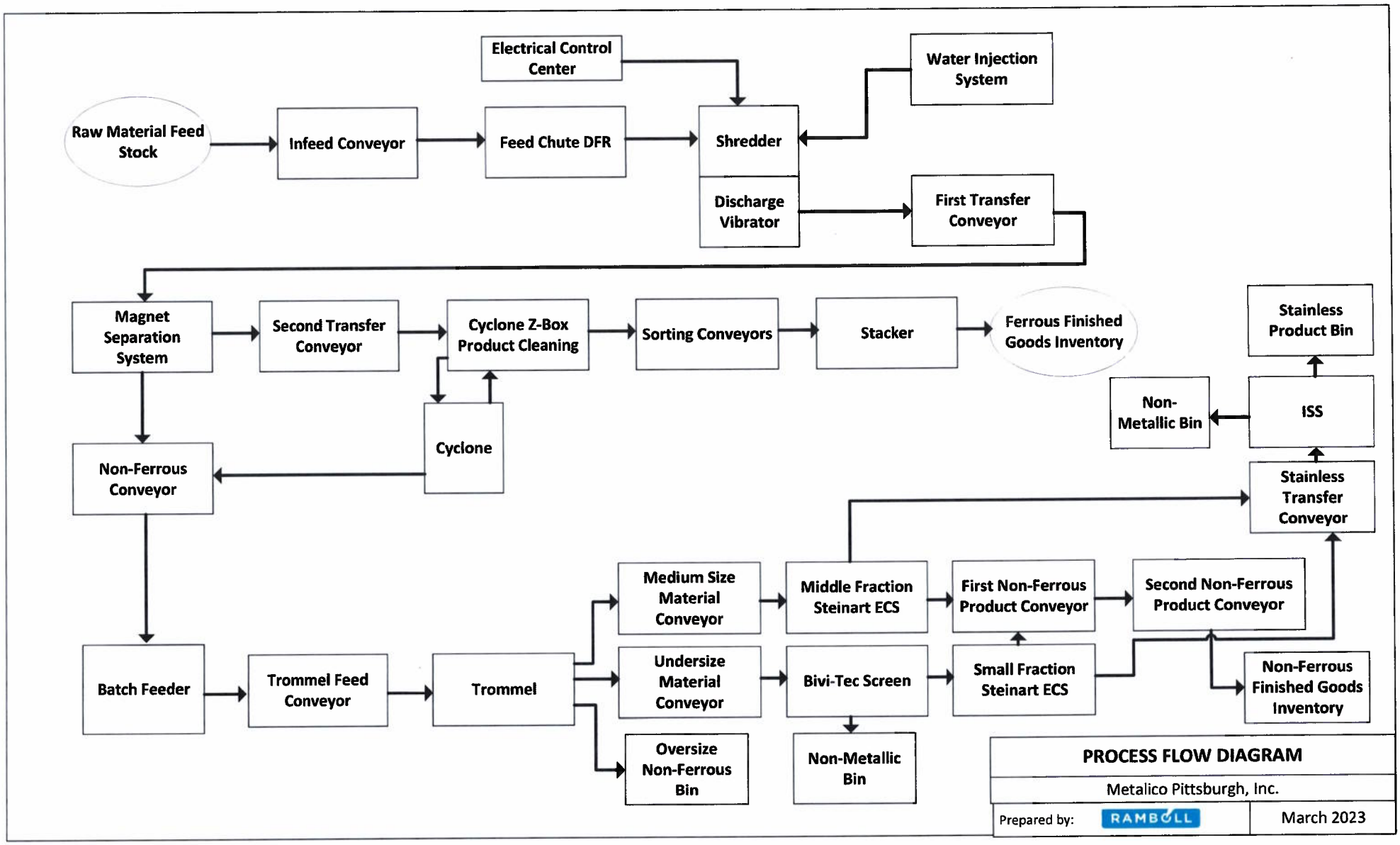
Sample	Description	Source	Taken/Time	Received
78380	L2260252 PITT WO	Alpha Analytical Lab	10/26/22 15:45	10/31/22

Parameter		Results	RDL	Method	Analyzed/Time	Tech
Ash,%		0.87	0.10	ASTM D482	11/01/22	sjr
Water, % (by volume)	Less Than	0.02	0.02	ASTM D95	11/01/22	sjr

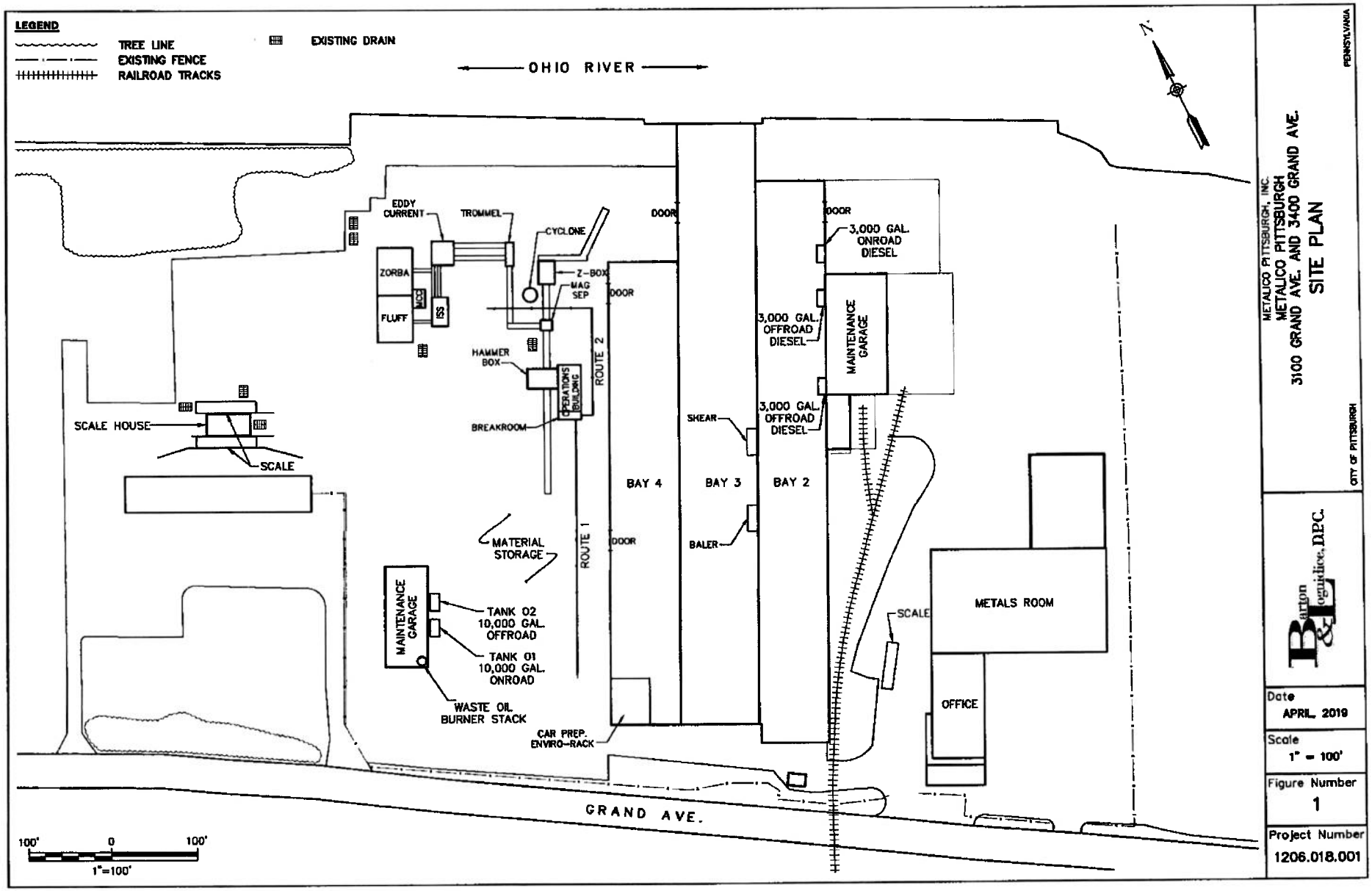
(1) MA & CT do not certify this parameter

Sterling Analytical, Inc.

APPENDIX E
Process Flow Diagram


Electrical Control Center
Water Injection System
Raw Material Feed Stock
Infeed Conveyor
Feed Chute DFR
Shredder
Discharge Vibrator
First Transfer Conveyor
Magnet Separation System
Second Transfer Conveyor
Cyclone Z-Box Product Cleaning
Sorting Conveyors
Stacker
Ferrous Finished Goods Inventory
Stainless Product Bin
Non-Metallic Bin
ISS
Cyclone
Non-Ferrous Conveyor
Stainless Transfer Conveyor
Medium Size Material Conveyor
Middle Fraction Steinart ECS
First Non-Ferrous Product Conveyor
Second Non-Ferrous Product Conveyor
Batch Feeder
Trommel Feed Conveyor
Trommel
Undersize Material Conveyor
Bivi-Tec Screen
Small Fraction Steinart ECS
Non-Ferrous Finished Goods Inventory
Oversize Non-Ferrous Bin
Non-Metallic Bin
PROCESS FLOW DIAGRAM
Metalico Pittsburgh, Inc.
Prepared by:
RAMBOLL
March 2023

APPENDIX F
Area Map



METALICO PITTSBURGH, INC.
METALICO PITTSBURGH
3100 GRAND AVE. AND 3400 GRAND AVE.
SITE PLAN
PENNSYLVANIA
CITY OF PITTSBURGH

Barton & Loguidice, D.P.C.

Date	APRIL 2019
Scale	1" = 100'
Figure Number	1
Project Number	1206.018.001

Plotted: Apr 23, 2019 - 8:27AM STR By: eir
L:\Shared\1200\1206018\1206018001_METALICO PITTSBURGH - REV 042319.dwg

APPENDIX G
USEPA Consent Order

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Philadelphia, Pennsylvania 19103-2029

In the Matter of:	:	
	:	**U.S. EPA Docket No. CAA-03-2023-0016DA**
METALICO PITTSBURGH, INC. **3100 GRAND AVENUE** **PITTSBURGH, PA 15225**	:	**Administrative Order On Consent Pursuant to Section 113(a)(1) and (4) of the Clean Air Act, 42 U.S.C. § 7413(a)(1) and (4)**
Respondent.	:	

CERTIFICATE OF SERVICE

I certify that the foregoing Administrative Order on Consent was filed with the EPA Region III Regional Hearing Clerk on the date that has been electronically stamped on the Administrative Order on Consent. I further certify that on the date set forth below, I caused to be served a true and correct copy of the foregoing Administrative Order on Consent to each of the following persons, in the manner specified below, at the following addresses:

Copies served via email to:

Michael Drury, President and CEO
Metalico Pittsburgh, Inc.
3100 Grand Avenue
Pittsburgh, PA 15225
mdrury@metalico.com

Michael H. Winek, Esq.
Babst Calland
Two Gateway Center
Pittsburgh, PA 15222
mwinek@babstcalland.com

Humane Zia
Senior Assistant Regional Counsel
U.S. EPA, Region III
zia.humane@epa.gov

Erin M. Willard
Environmental Scientist
U.S. EPA, Region III
willard.erinm@epa.gov

BEVIN ESPOSITO

Digitally signed by BEVIN ESPOSITO
Date: 2023.01.19 16:00:04 -05'00'

[Digital Signature and Date]

Bevin Esposito
Regional Hearing Clerk
U.S. Environmental Protection Agency,
Region III

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
FOUR PENN CENTER – 1600 JOHN F. KENNEDY BLVD.
PHILADELPHIA, PENNSYLVANIA 19103

Via E-Mail to *mdrury@metalico.com*

Michael Drury, President and CEO
Metalico Pittsburgh, Inc.
3100 Grand Avenue
Pittsburgh, PA 15225

Re: Clean Air Act - Administrative Compliance Order on Consent
In the Matter of: Metalico Pittsburgh, Inc.
Docket No. CAA-03-2023-0016DA

Dear Mr. Drury:

Attached is an Administrative Compliance Order on Consent ("Consent Order") that the United States Environmental Protection Agency ("EPA") is issuing to Metalico Pittsburgh, Inc. ("Metalico"). EPA is issuing this Consent Order to Metalico pursuant to its authority under Section 113(a) of the Clean Air Act ("CAA" or the "Act'), 42 U.S.C. § 7413(a), for Metalico's alleged violation of CAA Section 113(a)(1), 42 U.S.C. § 7413(a)(1), and requirements of the federally enforceable PA SIP, at its metal scrap shredding facility located at 3100 Grand Avenue, on Neville Island, Pittsburgh, Allegheny County, PA 15225 (the "Facility"). The attached Consent Order is effective immediately upon your receipt and requires immediate compliance with the requirements as stated in the Consent Order. Any violation of this Consent Order is subject to civil penalties under Section 113(b)(2) and (d)(1) of the Act, 42 U.S.C. §§ 7413(b)(2) and 7413(d)(1).

As noted above, the attached Consent Order takes effect immediately upon your receipt, whereupon it will remain in effect unless and until terminated in accordance with the requirements of Section I (Termination) therein. For any questions relating to the Consent Order, please contact, or have your legal counsel contact Humane Zia, Sr. Assistant Regional Counsel, at (215) 814-3454 or zia.humane@epa.gov.

Sincerely,

KAREN MELVIN
Digitally signed by KAREN MELVIN
Date: 2023.01.19 09:44:23 -05'00'

Karen Melvin, Director
Enforcement and Compliance Assurance Division
United States Environmental Protection Agency
Region III

Attachment – Consent Order (Docket No. CAA-03-2023-0016DA)
cc: Allason Holt, ACHD Allason.Holt@AlleghenyCounty.US

Paul Arnold, EPA (arnold.paul@epa.gov)
A.J. D'Angelo, EPA (dangelo.aj@epa.gov)
U.S. EPA Region III Regional Hearing Clerk (R3_Hearing_Clerk@epa.gov)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Philadelphia, Pennsylvania 19103

In the Matter of:	:	
	:	**U.S. EPA Docket No. CAA-03-2023-0016DA**
Metalico Pittsburgh, Inc.	:	
	:	**Proceeding under Sections 113(a)(1) and (4)**
3100 Grand Avenue	:	**of the Clean Air Act, 42 U.S.C. §§ 7413(a)(1)**
Pittsburgh, PA 15225	:	**and (4)**
	:	
Respondent.	:	

ADMINISTRATIVE COMPLIANCE ORDER ON CONSENT

A. PRELIMINARY STATEMENT

1. This Administrative Compliance Order on Consent ("Order") is issued under the authority vested in the Administrator of the U.S. Environmental Protection Agency ("EPA") by Section 113(a) of the Clean Air Act (the "Act"), 42 U.S.C. § 7413(a).
2. The Administrator of the EPA delegated the authority to issue this Order under the CAA to the Regional Administrators. The Regional Administrator of the EPA Region III has redelegated this authority to the Director of the EPA Region 3 Enforcement and Compliance Assurance Division, pursuant to EPA Delegation 7-6A.
3. Respondent is a corporation doing business in the Commonwealth of Pennsylvania. Respondent is a "person" as defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e).
4. Respondent signs this Order for purposes of reaching an amicable settlement with the EPA.
5. In satisfaction of the notice requirements of Section 113(a) of the CAA, 42 U.S.C. § 7413(a), on October 4, 2021, the EPA issued to Respondent a Notice of Violation and Opportunity to Confer ("NOVOC") and provided a copy to the Allegheny County Health

Department ("ACHD"), providing notice that the EPA found that Respondent committed the alleged violations described in Section C of this Agreement and providing Respondent an opportunity to confer with the EPA. On December 2, 2021, representatives of Respondent and the EPA discussed the NOVOC.

B. STATUTORY AND REGULATORY BACKGROUND

6. The EPA alleges and adopts the Findings set forth immediately below.
7. The EPA is authorized by Section 113 of the Act, 42 U.S.C. § 7413, to take action to ensure that air pollution sources comply with all federally applicable air pollution control requirements. This includes requirements promulgated by the EPA and those contained in federally enforceable State Implementation Plans ("SIPs") or permits.
8. The term "applicable implementation plan" is defined in Section 302(q) of the Act, 42 U.S.C. § 7602(q).
9. The applicable implementation plan for the Commonwealth of Pennsylvania ("Pennsylvania SIP") is codified at 40 C.F.R. Part 52, Subpart NN.
10. The Pennsylvania SIP contains regulations from the Commonwealth of Pennsylvania's Air Pollution Control Act ("APCA"), including, but not limited to, Subchapter F (Operating Permit Requirements), 25 Pa. Code §§127.401-127.464, and the ACHD's Air Pollution Control Regulations governing the air resources in Allegheny County, known as Article XXI (hereinafter "Article XXI"), including, but not limited to, Part C (Operating Permits) Sections 2103.01-2103.15 and Section 2103.20.b.4. *See*, 40 C.F.R. § 52.2020(c)(2).
11. Title V of the CAA, 42 U.S.C. §§ 7661-7661f, establishes an operating permit program for major sources of air pollution.

12. Pursuant to Section 502(b) of the CAA, 42 U.S.C. § 7661a(b), the Administrator promulgated regulations providing for the establishment of Title V permitting programs at 40 C.F.R. Part 70.
13. Section 502(d) of the CAA, 42 U.S.C. § 7661a(d), directs each state to develop a permit program under state or local law that meets the requirements of Title V of the CAA for review and approval by EPA. Once approved by EPA, the state air pollution control agency is authorized to administer its own Title V operating permit program.
14. Section 502(e) of the CAA, 42 U.S.C. § 7661a(e), authorizes EPA to retain the authority to enforce Title V operating permits issued by a state.
15. EPA approved the Pennsylvania Department of Environmental Protection's ("PADEP's") request on behalf of the Allegheny County Health Department for ACHD to implement the operating permit program as the permitting authority and issue operating permits pursuant to 40 C.F.R. Part 70, for sources of air pollutants within its Allegheny County geographic jurisdiction, effective December 17, 2001. *See,* 66 Fed. Reg. 55,112 (Nov. 1, 2001).
16. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), and EPA's regulations at 40 C.F.R. § 70.7(b), prohibit the operation of a major source except in compliance with a permit issued by a permitting authority under Title V of the CAA. *See also*, 35 P.S. § 4006.1(b)(1).
17. Pursuant to ACHD Article XXI Section 2103.10.b., no source located within Allegheny County may be operated or allowed to operate except in compliance with an Operating Permit issued under Article XXI Part C, Subpart 1 (§§ 2103.01-2103.15).

18. "Major source" is defined to include "any stationary source, or any group of stationary sources, that is located on one or more contiguous or adjacent properties, is under common control of the same person . . . and. . . (e) [f]or ozone transport regions established pursuant to Section 184 of the Clean Air Act, sources with the potential to emit, including fugitive emissions, 50 tpy or more of volatile organic compounds." Article XXI, § 2101.20.

19. "Title V facility" is defined, among other things, as "[a] major stationary source as defined in Title I, Part D of the Clean Air Act (42 U.S.C. §§ 7501-7515), including: (B) [f]or ozone transport regions established under section 184 of the Clean Air Act (42 U.S.C. § 7511c), sources with the potential to emit 50 tpy or more, of VOCs. . . ." 25 Pa. Code § 121.1.

20. The Commonwealth of Pennsylvania is included within the ozone transport region established under CAA Section 184(a), 42 U.S.C. § 7511c(a).

21. Potential to emit ("PTE") is defined as "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by [EPA] and citizens under the Clean Air Act." ACHD Article XXI, § 2101.20.

22. Pursuant to the provisions of ACHD Article XXI, Section 2103.20.b.4., a facility whose PTE exceeds the major source threshold for a regulated pollutant such as the 50 tons per year ("TPY") threshold for VOCs may, in lieu of applying for and obtaining a Title V

operating permit, properly submit to ACHD a Synthetic Minor permit application with enforceable conditions as a restriction on its PTE, provided that the facility must be in compliance at all times, during the review of the permit application and the term of the permit, with such enforceable conditions.

23. A "synthetic minor source" is an air contamination source subject to Federally enforceable conditions limiting the source's potential to emit to less than the major source thresholds specified in the definition of 'major source,' including, but not limited to, 50 TPY for VOCs. *See*, ACHD Article XXI, § 2101.20; 25 Pa. Code § 121.1.

C. FINDINGS

24. Respondent is the owner and operator of a metal scrap shredding facility (SIC Code 5093), located at 3100 Grand Ave. on Neville Island, Pittsburgh, Allegheny County, PA 15225 (hereinafter "the Facility").

25. Metal shredding operations began at the Facility in about November 2004, under the ownership of Respondent's predecessor, Neville Metals, LLC and Neville Recycling, LLC. In approximately May 2008, Respondent acquired the operations of the Facility.

26. At all times relevant to the violations alleged herein, the Facility operations have included the operation of a hammer-mill shredder ("Shredder") to process ferrous materials, including scrap motor vehicles ("end of life vehicles" or "ELVs"), appliances and other scrap metal, for recycling and ultimate resale to steel manufacturers.

27. A Minor Source Operating Permit #0692 was issued for the Facility by ACHD on August 21, 2007 ("Minor Source Permit #0692"). At the time of issuance, Minor Source Permit #0692 did not include any enforceable limitation on the Shredder's allowable annual hours of operation.

28. ACHD Minor Source Permit #0692 (Section IV, Condition 4) requires that the Facility "shall not conduct, or allow to be conducted, any material handling operation in such manner that emissions from such operation are visible at or beyond the property line," pursuant to Article XXI, Section 2104.05. Article XXI, Section 2104.05 was approved by EPA as part of the PA SIP on November 14, 2002. 67 Fed. Reg. 68,935 (Nov. 14, 2002).
29. ACHD Minor Source Permit #0692 (Section IV, Condition 20) requires that "[n]o person shall transport, or allow to be transported, any solid or liquid material outside the boundary line of any source for which a permit is required by Article XXI Part C [Operating Permits] in such manner that there is any visible emission, leak, spill, or other escape of such material during transport," pursuant to Article XXI, Section 2105.43. Article XXI, Section 2105.43 was approved by EPA as part of the PA SIP on November 14, 2002. 67 Fed. Reg. 68,935 (Nov. 14, 2002).
30. On August 8, 2018, EPA conducted a CAA inspection ("Inspection") at the Facility to verify its compliance with applicable State and Federal regulations.
31. By a letter dated October 31, 2019, EPA issued to Respondent a Notice of Noncompliance/Opportunity to Show Cause, describing potential violations of the PA SIP and the CAA at the Facility identified by EPA after further investigation of the Facility's operations following the Inspection.
32. The EPA has collected performance test data from scrap metal shredding facilities located across the United States, with feedstocks and feed rates comparable to the Respondent's Facility. Between November 2019 and September 2020, EPA provided to Respondent the emission values used by EPA to evaluate the Facility's potential to emit VOCs and compliance with applicable CAA requirements.

33. Based on these performance tests' data and Respondent's maximum operational capacity of the Facility's Shredder, the EPA has determined that without federally enforceable operational limitations, such as the Shredder Operational Limitations described in Section D of this Order, the Facility has a PTE more than 50 TPY VOC.

34. Respondent submitted to ACHD an application for a Synthetic Minor Permit for the Facility on October 31, 2019, and a revised application for a Synthetic Minor Permit on January 11, 2021. Based on EPA's review and information, neither of Respondent's applications for a Synthetic Minor Permit contained sufficient operational limitations and enforceable conditions, including, but not limited to, the use of an appropriate VOC emissions factor to calculate its potential to emit VOCs.

35. On October 4, 2021, EPA issued to Respondent an NOVOC describing violations identified by EPA, including Metalico's operation without a Title V Operating Permit and its alleged failure to conduct its material handling operations in accordance with the Facility's August 21, 2007 Minor Source Permit #0692.

36. On December 2, 2021, EPA met with Respondent to discuss the NOVOC and options to resolve the alleged violations described therein.

37. The EPA asserts that Respondent's Facility has a PTE more than 50 TPY VOCs and that Respondent was required to either (1) apply for and obtain a Title V Operating Permit in accordance with Section 502 of the CAA, 42 U.S.C. § 7661a(a) and 25 Pa. Code § 127.502, or (2) apply for and obtain a Synthetic Minor Operating Permit, in accordance with ACHD Article XXI, Section 2103.20.b.4, with enforceable conditions on its Facility operations, including, but not limited to, the use of an appropriate VOCs emission factor with which to calculate its VOCs PTE from the Facility.

38. As of the date of this Order, Respondent continues to operate the Facility without a Title V Operating Permit or an appropriate Synthetic Minor Operating Permit in the alternative.

39. The EPA alleges that Respondent's failure to comply with Section 502 of the CAA, 42 U.S.C. § 7661a, and 25 Pa. Code § 127.502 constitutes a violation of the CAA that is subject to enforcement by EPA pursuant to Sections 113 of the CAA, 42 U.S.C. § 7413.

40. In failing to comply with the CAA, Respondent is subject to an administrative order under Section 113(a) of the CAA, 42 U.S.C. § 7413(a).

41. Based on the information currently available to the EPA, the Agency believes that the physical and/or operational limitations for the Facility's Synthetic Minor Operating Permit required in Paragraph 42 herein will ensure that the Facility maintains its potential to emit VOCs under the 50 TPY major source threshold pursuant to the CAA.

D. ORDER

42. Within sixty (60) days from the effective date of this Order, or by March 1, 2023, whichever is later, Respondent shall submit to the ACHD (for review and approval) and to EPA (for the Agency's information), a complete amended Permit Application for the Facility which requests ACHD's issuance of a CAA Synthetic Minor Permit ("Synthetic Minor Permit Application") containing the following limitations and conditions:

Shredder Operational Limitations:

a. Maximum hours of operation of 10 hours in any calendar day, or eight hours per day during Air Quality Action Days[1] as determined by ACHD;

[1] Air Quality Action Day is defined as: "a day for which a forecast, for Allegheny County, has been issued by the Pennsylvania Department of Environmental Protection, the Allegheny County Health Department or the Southwest Pennsylvania Air Quality Partnership indicating that ambient concentrations of ozone, particulate matter, carbon monoxide, sulfur dioxide, or nitrogen dioxide might reach unhealthful levels or exceed the National Ambient Air Quality Standards." Article XXI § 2101.20. Air Quality Action Day alerts from ACHD can be requested at www.alleghenycounty.us/alerts.

b. Maximum shred feed rate of 120 ton/hour;

c. Maximum throughput rate of 240,000 tons per year of shred feed;

d. Maximum annual hourly operating limit, such that the Facility will not exceed a PTE of 50 TPY VOCs[2], inclusive of all other VOC emitting sources located at the Facility.

e. An emission factor of 0.39 lb VOC per ton of shred feed (lb VOC/ton) shall be used for all VOC emissions calculations related to VOC emissions generated by the Facility Shredder.

Requirement to Record of Hours of Operation

f. The total number of hours per day in which the Facility Shredder operates at an amperage draw equal to or greater than 200 amps[3] shall be recorded using the Shredder's existing, or a functionally equivalent, amperage monitoring system. These recorded hours shall define the number of hours that the Shredder is emitting VOCs, for purposes of calculating annual VOC emissions from the Shredder.

    i. The amperage monitoring system shall collect data before, during, and after the Shredder's operation at an amperage draw equal to or greater than 200 amps, for a minimum period of 12 hours/day. For example, if the Shredder's hours of operation are 7:00am to 3:30pm, the monitoring system could begin collecting data at 5:00am and cease collecting data at 5:00pm each day.

g. The total number of hours per day in which the Shredder amperage is equal to or greater than 200[3] amps shall be reported to ACHD in a manner and frequency proposed by the permittee for approval by ACHD.

h. Data from the amperage monitoring system shall be maintained on a central server so that it can be accessed at both the Facility and Respondent's other offices, to provide to ACHD or EPA upon request.

Requirement to Document and Record Shredder Feed

i. A daily written record of the Facility's shredder feed shall be maintained, using both its scale house and product classification process, as assessed upon receipt of all materials arriving at the Facility.

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[2] At the maximum shred feed rate of 120 tph, 240,000 tons/year correlates to 2,000 hours/year shredder operating hours. Metalico shall use the annual operating hours as a basis to ensure that the total quantity of VOC emissions at the Facility, including those from the Shredder and all other Facility sources, does not exceed the 50 TPY VOC limitation on potential to emit.

[3] This 200 amp value represents the typical amperage draw when the Shredder is mechanically shredding material, therefore, these hours are presumed to be the hours that the unit is generating VOCs.

Requirement for Best Management Plan

j. A Best Management Practices Plan ("BMP Plan") shall be submitted to ACHD annually following the date of submission of Respondent's amended Synthetic Minor Permit Application, for review and comment. The BMP Plan shall include, at minimum, the following elements, and shall describe how they will be implemented at the Facility:

   i. Fire Prevention, including, but not limited to: use of an infrared ("IR") camera (or other temperature gauging equipment) to scan the Facility and scrap piles as a means of reducing the potential for fires; on-site trainings on the use of equipment and fire response; fire hydrant map and maintenance activities; and the use and installation of "water cannon" or other fire suppression systems;

   ii. Visible Emissions Reduction, including, but not limited to, water suppression and other means to prevent dust and other visible emissions from leaving the Facility boundary;

   iii. Vehicle Handling and Depollution, including, but not limited to, draining engine fluids and fuels, removing batteries and switches, and handling of electric vehicles (e.g., Toyota Prius, Tesla, etc.), if accepted for shredding by the Facility;

   iv. Hazard Reduction, including, but not limited to, sorting and removal of pressurized tanks, handling of fuel-containing materials to minimize explosions in the shredder, and removal of lithium and other batteries.

43. Respondent shall submit to EPA and ACHD, within sixty (60) days from the effective date of this Order, or by March 1, 2023, whichever is later, a report of practices it currently conducts at the Facility to address fire prevention, visible emissions reduction, vehicle handling and depollution, and hazard reduction, as those activities are described in Paragraph 42.j. above.

44. For purposes of the identification requirement in Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), and 26 C.F.R. § 162-21(b)(2), performance of Paragraphs 42-43 is restitution, remediation, or required to come into compliance with the law.

E. OTHER TERMS AND CONDITIONS

45. Respondent admits the jurisdictional allegations contained in this Order.

46. Respondent neither admits nor denies the findings in Section C (Findings) of this Order.

47. In the event that a force majeure event impacts the ability of Respondent to comply with the terms of the Order, Respondent shall contact the EPA at the earliest sign of potential non-compliance. For purposes of this Order, "force majeure" is defined as any event arising from causes beyond the control of Respondent, of any entity controlled by Respondent, or of Respondent's contractors, that delays or prevents the compliance of the terms of this Order despite Respondent's best efforts to fulfill its obligations. Increased costs or expenses associated with compliance, or a change in Respondent's economic circumstances does not constitute force majeure. Respondent shall identify how a force majeure was the cause of the non-compliance, and the decisions and actions taken in response, including best efforts to comply with the Order. The EPA and Respondent shall work cooperatively to mutually agree to a reasonable modification to the terms of the Order. Respondent shall act responsibly under the circumstances in order to minimize the duration of any non-compliance with the Order caused by a force majeure.

F. GENERAL PROVISIONS

48. Any violation of this Order may result in a civil administrative or judicial action for an injunction or civil penalties of up to $109,024 per day per violation, or both, as provided in Sections 113(b)(2) and 113(d)(1) of the Act, 42 U.S.C. §§ 7413(b)(2) and 7413(d)(1), which reflects the appropriate Adjustment of Civil Monetary Penalties for Inflation, pursuant to 40 C.F.R. Part 19, and the applicable EPA memoranda addressing EPA's civil penalty policies to account for inflation. Additionally, any violations of the Order

may result in criminal sanctions as provided in Section 113(c) of the Act, 42 U.S.C. § 7413(c). The EPA may use any information submitted under this Order in an administrative, civil judicial, or criminal action.

49. Nothing in this Order shall relieve Respondent of the duty to comply with all applicable provisions of the Act or other federal, state or local laws or statutes, nor shall it restrict the EPA's authority to seek compliance with any applicable laws or regulations, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state, or local permit.

50. Nothing herein shall be construed to limit the power of the EPA to undertake any action against Respondent or any person in response to conditions that may present an imminent and substantial endangerment to the public health, welfare, or the environment.

51. The provisions of this Order shall apply to and be binding upon Respondent and its officers, directors, employees, agents, trustees, servants, authorized representatives, successors, and assigns. From the Effective Date of this Order (Paragraph 55) until the Termination Date of this Order (Paragraph 57), Respondent must give written notice and a copy of this Order to any successors in interest prior to any transfer of ownership or control of any portion of or interest in the Facility. Simultaneously with such notice, Respondent shall provide written notice of such transfer, assignment, or delegation to the EPA. In the event of any such transfer, assignment, or delegation, Respondent shall not be released from the obligations or liabilities of this Order unless the EPA has provided written approval of the release of said obligations or liabilities.

52. Unless this Order states otherwise, whenever, under the terms of this Order, written notice or other document is required to be given, it shall be directed to the individuals

specified at the addresses below unless those individuals or their successors give notice of a change of address to the other party in writing:

Erin Willard, Environmental Scientist
U.S. EPA, Region III, Enforcement and Compliance Assurance Division (3ED21)
Willard.ErinM@epa.gov

Humane Zia, Senior Assistant Regional Counsel
U.S. EPA Region IIII, Office of Regional Counsel (3RC30)
Zia.Humane@epa.gov

Michael Drury, President and CEO
Metalico Pittsburgh, Inc.
135 Dermody Street
Cranford, NJ 07016
mjdrury@metalico.com

Kevin Whalen
Metalico Pittsburgh, Inc.
135 Dermody Street
Cranford, NJ 07016
kwhalen @metalico.com

All notices and submissions shall be considered effective upon receipt. Notices, documents, or submissions due to the EPA shall be sent via email to Willard.ErinM@epa.gov unless arrangements are otherwise made by contacting Ms. Willard via email.

53. To the extent this Order requires Respondent to submit any information to the EPA, Respondent may assert a business confidentiality claim covering part or all of that information, but only to the extent and only in the manner described in 40 C.F.R. Part 2, Subpart B. The EPA will disclose information submitted under a confidentiality claim only as provided in 40 C.F.R. Part 2, Subpart B. If Respondent does not assert a confidentiality claim, the EPA may make the submitted information available to the public without further notice to Respondent.

54. Each undersigned representative of the Parties certifies that he or she is authorized to enter into the terms and conditions of this Order to execute and bind legally the Parties to this document.

G. EFFECTIVE DATE AND OPPORTUNITY FOR A CONFERENCE

55. Pursuant to Section 113(a)(4) of the Act, an Order does not take effect until the person to whom it has been issued has had an opportunity to confer with the EPA concerning the alleged violations. By signing this Order, Respondent acknowledges and agrees that it has been provided an opportunity to confer with the EPA prior to issuance of this Order. Accordingly, this Order will take effect immediately upon signature by the latter of Respondent or the EPA.

H. JUDICIAL REVIEW

56. Respondent waives any and all remedies, claims for relief and otherwise available rights to judicial or administrative review that Respondent may have with respect to any issue of fact or law set forth in this Order, including any right of judicial review under Section 307(b)(1) of the Clean Air Act, 42 U.S.C. § 7607(b)(1).

I. TERMINATION

57. This Order shall terminate on the earlier of the following (the "Termination Date") at which point Respondent shall operate in compliance with the Act:

    a. One year after the Effective Date of this Order;

    b. The effective date of any determination by the EPA that Respondent has achieved compliance with all terms of this Order; or

c. Immediately upon receipt by Respondent of notice from the EPA finding that an imminent and substantial endangerment to public health, welfare, or the environment has occurred.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
BEFORE THE ADMINISTRATOR

In the Matter of: **Metalico Pittsburgh, Inc.** Respondent.

Administrative Compliance Order on Consent
EPA Docket No. CAA-03-2023-0016DA

For United States Environmental Protection Agency, Region III:

KAREN MELVIN Digitally signed by KAREN MELVIN
Date: 2023.01.19 09:43:34 -05'00'

[digitally signed and dated]
Karen Melvin
Office of Enforcement and Compliance Assurance Division
U.S. EPA, Region III (3ED00)
Philadelphia, PA 19103

For Metalico Pittsburgh, Inc. :

Signature Date December 9, 2022

Printed Name: Michael Drury
Title: President and CEO

APPENDIX H
Application Fee